AMERICAN FARMER:

DEVOTED TO

Agriculture, Forticulture, and Bural Gconomy.

[ESTABLISHED 1819.]

"O FORTUNATOS NIMIUM SUA SI BONA NORINT "AGRICOLAS." Virg.

Sixth Series.

BALTIMORE, AUGUST, 1868.

Vol. III .- No. 2.

AUGUST.

"Oh, happy, who by liquid streams In shady gardens can retire—

Where murmuring falls and whispering trees Sweet slumber to invite conspire:

Or where he may deceive the time With volume sage, or pensive lyre."

Work for the Month.

It is well for the farmer that during the heats of August he may betake him in a measure to the shade, and abate the labors of the field. The harvest of grain and hay being finished, and the working of the corn and potato crops done, while there will still be enough to do, it will not press so urgently as in the months past.

CORNFIELD.

As there will be no further work in the cornfield, let it be well secured against intruding stock.

POTATOES.

The late potatoes should be worked till they bloom, when the cultivation must be finished by a slight earthing.

TURNIPS

The fall crop of ruta bagas should now be sown, if not already done. The weather and condition of the ground having been so favorable generally that it is to be hoped they are by this time growing well. After coming out of the ground, a dressing of ammoniated superphosphate and plaster will force them rapidly away from the fly. When out of

danger of fly, let them be unsparingly thinned. Few circumstances tend more to the diminution of this crop than the temptation to leave too many flourishing plants standing. They must be kept scrupulously clear of grass while young.

Sow white turnips from the 10th to the 20th.

TOBACCO.

In this region the season has been peculiarly favorable to the setting of the crop, and it is hoped it has everywhere had its first workings, and is rapidly growing. Frequent workings with the cultivator, and a second hoeing, which draws the earth slightly toward the plants, will be necessary. The working may be continued until the interlapping of the leaves endangers their breaking.

WORMS

The tobacco worm, so destructive sometimes, and always causing more or less loss and injury to the crop, may be looked for in large numbers during the month. Their appearance will be indicated by small punctures in the leaves, when the worms are too small to be observed, and they should be then hunted diligently and destroyed before they become large enough to do much damage. If they appear in great numbers, all the available force of the farm and all the turkies that can be got together, should be devoted to the work of extirpation.

TOPPING.

The topping of the crop begins when a sufficient number of plants shall have flowered or buttoned, to make a good cutting. All

should be taken off so as to leave a uniform length of leaf at the top, of some six inches. All so topped will be fit to cut in about three weeks after topping.

Such plants as are topped will begin at once to throw up suckers at the foot of each leaf. These must be carefully broken out as they appear, their growth being made at the expense of the valuable leaves, whose body and weight are seriously diminished by the loss of the juices which nourish these vigorous offshoots. Before cutting they must be all taken out, as otherwise they continue to grow in the house and stain the finer leaves.

A few of the finest plants of the crop are to be reserved for seed when topping. The leaves of such plants, when well ripe, are to be taken off, and tied up to cure, and the stalk left standing till the seed are thoroughly matured.

RYE.

The proper season for sowing this crop is about the 1st September. The ground should therefore be got in readiness during this month. On very light soils it may pay better than a crop of wheat, but it is not a favorite crop on good wheat lands, from its tendency to grow as a weed among wheat.

Its most important use generally is, in our opinion, as a green crop for early spring use. It is fit for cutting two weeks before clover, and the farmer who values properly green food for his stock in early spring, will not be willing to dispense with it. Sown for this purpose it should be seeded thickly-two bushels to the acre-and well manured.

At the earliest time practicable, the preparation of the clover field, or oat stubble, should be begun, as the main reliance for the crop of wheat. If it be oat stubble, it is a great mistake to haul out the manure from the yards, as we have often seen, and spread before ploughing. The ploughing should be done first, because the earliest period should be availed of, lest the ground become too hard, and also because the better practice is to put the manure on the surface after ploughing. If well turned early in the season, the ground will need only a superficial working at seed time. Let there be no fear of ploughing as deep as three good horses and a good plough | green, and may also be cut too ripe.

can turn it well, unless there be something poisonous in the subsoil, which is not often the case.

The necessity for early seeding becomes . every year more apparent, and some of the hardy red wheats may be sown the first week of September.

TIMOTHY.

Timothy is now most commonly sown in a rotation with grain. In that case it must be sown, of course, immediately after the wheat, and its place in the rotation is with the fallow wheat.

If a lot of ground is to be appropriated exclusively to this crop, it should be put in most thorough condition early in the month, and sown not later than 1st September. In such case there is no reason why a good crop should not be realized the first season if seed enough be put on the ground and manure enough used.

A crop of turnips sufficient to pay the expense of seeding the timothy may be made, by mixing a quarter of a pound of white turnip seed with timothy seed for an acre, and sowing about the middle of the month.

CATTLE PENS.

The thinner portions of a field, or such as need to be manured heavily for any purpose, should have the cattle penned upon them at this season with movable pens, the bottoms of which should be covered with coarse litter of any kind. Moved once a fortnight, much ground may be manured before the season for housing at night. Materials for composts may be gathered at this season with advantage.

THRESHING GRAIN.

It is well to have the grain threshed early, whether we mean to take advantage of the early market or not. For many years we have been warning those who use machines to take such precautions as would make accidents almost impossible. The feeding apron should be so made as to make it impossible for the feeder to thrust his hand into the teeth of the machine. The wheels should be entirely boxed up; and when it is necessary to stop for oiling or other purpose, the leathern band should be thrown off, so that there can be no movement made till everything is in readiness.

Grass as well as wheat may be cut too

The Vegetable Garden.

AUGUST.

Beans.—Six weeks beans for late use may still be planted in quick, rich soil, well and deeply ploughed. Their quality will depend very much on these circumstances.

Celery.—Earth up the early planted about every ten days, and be careful not to cover up the buds. The late planted should be kept shaded till well rooted. It may still be planted if plants are well grown.

Cucumbers and Molons.—If the weather be dry, some litter or fine manure thrown about these will prolong their bearing.

Lettuce.—Sow for a fall crop about the middle of the month, in a rich bed.

Spinach.—Sow spinach in drills two feet apart, to come into use before winter, from the middle to the end of the month.

General Cultivation.—Keep the garden quite clean of weeds, that none be allowed to go to seed.

Let all vacant ground be filled with cabbage, turnips, spinach, or sach crops as may make it useful.

Keep all crops of carrots, onions, parsnips, late beets, &c., well worked between rows.

The Flower Garden.

At this season of the year, it is of the highest importance to those having a mixed collection of soft-wooded plants, that the whole should be carefully examined, in order to ascertain how the stock stands with regard to number and condition of each individual; and when it is evident that the plants have become starved for the want of pot room, they should be shifted into larger ones at once, and cuttings put in, or layers made of such as may be wanted in greater numbers.

Towards the end of the month, all hard-wooded plants, as Acacias, Diosmas, Myrtles, &c., &c., should be shifted into larger pots, or, in many instances, it will only be necessary to top-dress with fresh earth; choose cloudy weather to do this work, and when the operation of shifting and tieing up to stake is finished, replunge the pots in spent tan, sand or ashes—the last is the best.

old

Chrysanthenums, that have been raised by cuttings or division of the roots, and that have already had one shift, may now be moved into the pots in which they are to bloom; pinch back the points of the shoots for the last time, and arranging the plants, see and give them plenty of room, in order that they may branch out laterally; water freely at least twice every week, with liquid manure.

Pelargoniums.-If these have not been headed down, this work should not be longer delayed; cut back to within a few eyes of the previous year's growth, after which they should be kept rather dry for at least two weeks; then turn them out of the pots and shake off nearly all the old earth, prune the roots well back, and place them in pots at least one size smaller than that in which they bloomed; a compost to grow them in consists of two parts of well decayed loamy sods, the other two of rotted cow manure and sand in equal proportions. Cuttings of the tops placed in two-inch pots, in a compost of vegetable mould and sand, root freely if plunged in a spent hot-bed, and partially shaded for a few days, or until they make root.

Camellias.—The present is a good season in which to shift all plants that did not undergo that operation last spring. So soon as the work is done, place the whole in a shady situation, keep the roots moist, and syringe freely overhead until such time as cold nights set in. Take off such inarches as are well united.

Glorinias and Archimenes.—The atmosphere in which these are grown should be kept moist, and the plants well supplied with water at the roots until such time as the foliage begins to decay, when watering should be discontinued by degrees altogether.

Euphorbeas, Cestrums, Habrothamnuses.— When these are wanted to bloom strong in winter, should now be kept in a growing condition by giving larger shifts, and by liquid manures.

Mignonette, Ten-week Stocks, and other annuals for winter bloom, should be sown without delay.

Cinerarias may now be propagated, either by division of the roots or by seeds.

Heliotropes and Scarlet Geraniums.—A few plants of these should be headed in, and shifted into light rich earth; such plants will bloom freely late in the fall.

Verbenas.—When plants for early winter flowering are wanted, the easiest way to get good plants well established, is to fill a number of four or five inch pots with good earth, plunge these pots in the ground under the branches of such kinds as you may wish to secure, then peg down the branches to the surface of the pots, which they will not be long in filling with roots, when they may be cut away and tied up to stakes and placed away in a cold frame. But we prefer plants raised from cuttings for spring flowers; such cuttings can be put in any time before frosts overtake the old plants.

Calceolarias.—Sow seeds now of the herbaceous kinds; the shrubby sorts strike easily from cuttings in the fall, and will bloom well in spring.

Oxalises.—Fill a few pots now of the more showy kinds for early flowering.

Roses-In pots for winter blooms, should be pruned in and shifted into fresh soil. Those in the open grounds that have made strong shoots, may still be laid down to root; that class of Roses known as Hybrid Perpetuals, do not as a general thing root freely by layering; while many kinds on the other hand throw out roots readily, by simply twisting the stem at the bend, where it is made to assume a vertical position, by being first pegged down and the earth pressed in behind; but the best way that we know of to produce a well rooted layer in the shortest time, is to pass a sharp knife half way through the stem upwards, so as to form a tongue from one to three inches in length, (according to the strength of the shoot;) this incision should be made in front, or opposite to where the bend or turn up is to be made, and when the peg is put down, the tongue, by gentle twist of the shoot, and bending of it upwards, is thrown in a free position past the side of the shoot or stem into the ground; this method has this advantage over the usual one, of making the tongue behind or on the side, of preventing the shoot operated upon from snapping or breaking at the incision when bringing it into an erect position, which is frequently the case, when the subject acted upon is young and tender. In the mode of making the incision we have described above, there is no necessity of putting in chips of wood, &c., to keep the tongue free from the stem, as it will stand clear of itself, if the operation is properly per-

Heathes and Epacreses.—Keep these in a cool partially shaded position, and see that they do not suffer for want of water.

Picotees and Carnations.—Continue to layer | for the butcher."

these as the grass progresses in length; make new beds of such layers as are already well rooted.

Phlores may now be readily propagated by cuttings.

Pansies.—Make the first sowing for early spring blooms.

Dahlias.—Keep these well tied up to their stakes, and in dry weather stir up the ground around them well, then mulch with manure, and water freely at the root; clean away all suckers and lateral shoots that make their appearance within fifteen inches of the ground.

Shrubbery and Flower Borders.—Keep these clear of weeds by frequent deep hoeings; cut down to within three or four inches of the young leaves all decayed herbaceous plants, and trim into form all straggling shoots on the shrubs; roll the lawn and walks after a shower, and see to destroying nests of insects, and insects generally that are destructive to vegetation.

The Fruit Garden.

Strawberries.—This and next month are the best time of the year for making new plantations of strawberries. Plant none but varieties of established reputation in your neighborhood, except for the purpose of trial.

Where fine, strong, plants are to be had, if taken up very carefully with earth attached, and well planted and cared for, a good crop may be expected from them next spring—a full crop, however, not till the following year. Of course such care can be taken only with a very small planting.

Raspberries.—All old wood should be taken out and not more than four or five canes of the new left.

Newly Transplanted Trees.—These should be well looked to through this month. If it be dry, keep a sufficient mulch about them, to the distance of four feet from the tree in all directions. For grape vines, strawberries, &c., an occasional watering of soap-suds will prove beneficial.

The Best Kind of Hogs.—A correspondent of the *Prairie Farmer*, after experimenting ten years with nearly every breed, has come to the decided opinion that "the Suffolk will furnish the most pork for the least money, and with the least trouble, over any other kind of hogs." He considers them "the easiest kept, and perfectly harmless; they make the least offal, and are ready at any time for the butcher."

Strawberries in Alabama.

C. C. Langdon, Esq., agricultural and horticultural editor of the "Mobile Sunday Times," gives the following remarkable result of the effect of thorough culture of strawberries. Two hundred dollars, it will be seen, was the result of a half crop from five-eighths of an acre, from 20th December to 15th January—with another crop, running from 10th of April to 21st of June, and of very fine flavor and quality:

"The piece of ground contains about fiveeighths of an acre. Soil a good sandy loam of eight or ten inches, with a subsoil of red clay. The plants were set out in the last days of March, 1864, in rows four feet apart, and eighteen inches apart in the row. The crop of the spring next preceding that of last winter was heavy-the plants having been in constant bearing from the middle of April to the first week in July-nearly three months. The season was unusually wet, which caused an immense growth of grass and weeds during the bearing season. They had been mulched with pine straw to keep the fruit clean, but not sufficient to keep down the grass and weeds. This growth was tramped down and matted by the constant tramping in picking the fruit, so as to render ploughing impossible; and the question was, how the ground was to be cleaned and the plants given the necessary cultivation. There seemed to be but one resort, and that was to trenching .-Either that must be done, or the "patch" abandoned. We determined on the former, against the protestations of our foreman and all the hands, who insisted the plants were not worth the labor. We first had the weeds and grass all chopped up with hoes, and then, with spades, trenched between the rows, digging across from row to row about two feet wide, and eighteen inches to two feet deep, burying the grass, weeds and mulch in the bottom of the trench. It was a slow, tedious and heavy job. Nine men completed it in six days. The spading done, the rows were then cleaned out with hoes and by hand. The after-culture, during the season, consisted in an occasional hoeing, to kill the few scattering weeds that, from time to time, made their appearance, and clipping the runners. The plants which, at the time of trenching-from being choked with grass-were feeble and slender, and some of them drying up, soon began to improve, and by fall presented an

appearance of great vigor, and of rich, dark green color. The ground, during the whole season, was as mellow as an ash heap. In December, the weather being unusually warm, the plants began to bloom profusely, and the result was, from the 20th December to the 8th January, a large crop of the largest, and, without exception, the highest flavored berries that we have ever seen. A heavy freeze on the 9th, 10th and 11th January, (thermometer going as low as 24° on the morning of the 10th.) killed plants and fruit, and put a stop to the bearing for the winter. The plants were loaded with green berries and white with blossoms at the time of the "cold snap."

We realized over two hundred dollars from sales, besides losing at least half the crop by a long red worm that appeared in great numbers and ate their way into the berry. The crop produced during those twenty days of mid-winter, could it all have been saved, would have netted us all of five hundred dollars. And all this was evidently the result of the "particular care bestowed" in trenching and covering, to the depth of two feet, that immense quantity of green weeds and grass. In other portions of our grounds where the plants received only the ordinary treatment, and the variety the same, there was no winter crop, although there were blooms and an occasional ripe berry. The cost of trenching, counting the labor at a dollar per day, was fifty-four dollars, all told.

We will further state that the crop from this "patch" this spring has been better than on any other portion of our grounds, although the plants are four years old. They have been in constant bearing ever since the 10th of April, are now yielding a bushel every other day, and, with seasonable showers, will doubtless continue bearing several weeks longer. And all from the thorough culture, the "particular care bestowed upon them" last summer.

To insure a certain crop of choice quality of fruit, strawberries must have thorough culture—the right kind of work at the right time. Then, we know of no crop that will pay better. Neglect is fatal."

The veterinary editor of Wilkes' Spirit of the Times recommends the following for scratches in a horse: take sulphate of zinc, one drachm; glycerine, two ounces; apply every morning.

Gathering Fruit.

The appearance and value of fruit depend very much upon when and how it is gathered. Strawberries, if picked carefully with half or quarter of an inch of the stem attached to each berry, and laid carefully into the basket, will carry better and sell for a greater price than when pulled hap-hazard, some with hulls and stems on and some with them off. Again -if they are gathered when they are perfectly dry, they will keep longer and retain a better flavor than if gathered while wet. A little water not only hastens decay, but it rapidly destroys the flavor of many delicate, soft varieties. After being gathered, they should never be allowed to stand out exposed to the sun, as with many varieties it takes but a little while of exposure to a hot, clear sun, to destroy their brightness of color.

Currants should also be gathered with their stems; they should also be dry and all leaves thrown out. Gooseberries, if for shipment, should be gathered dry, and a careful expulsion of all leaves will cause them always to command the best price. Like the strawberries, care should always be taken not to expose them to a hot sun after gathering, for such exposure soon gives the appearance of being half cooked.

Raspberries and blackberries are too often seen in the market and on the table half broken and mashed. None but whole and perfect berries should ever go into the box or basket for market. It pays to carefully assort them before sending to market, for the mingling of a few bruised or mashed berries induces decay and detracts from their value in the judgment of the dealer.

Cherries should never be gathered when otherwise than perfectly dry. We have known them to decay entirely in twenty-four hours when gathered while wet. It pays also with cherries for market to carefully sort them over on a table, picking out any mashed or wormy or imperfect fruit before sending to market. Of course the stems are, or always should be attached, although we have occasionally seen them in market looking more like round cranberries than cherries.

Peaches should be left on the tree until fully ripe, and then gathered carefully with thumb and finger, and at once laid into the basket or box in which they are to be marketed. If the bloom is rubbed off the peach by rough handling, its beauty of appearance is injured,

and it will decay much sooner than if untouched. Formerly it was supposed that the peach must be gathered before fully ripe in order to ship it any distance; but practical experience has proved that ripe fruit, not quite soft, will carry just as well as unripe, and command a much better price.

Pears and apples should never be picked from the tree by breaking the stems. Unless the stem will separate freely from the tree, the fruit is not ripe; it will neither eat nor cook good, and is only fit for those who want a touch of cholera morbus. Apples, as soon as gathered, may be sent direct to market; but nearly every variety of pear is improved in appearance and quality by keeping in close, dark drawers, wrapped in flannel or soft paper, or packed in bran a few days.

For profit, and in order to obtain the highest price, all fruit pays to be assorted into two or more grades. A few scattering large berries, apples or pears, in a quart or bushel, do not assist in advancing the price; but if carefully packed by themselves will bring the highest price, and often induce the dealer to buy the small fruit in order to get the large.—Horticulturist.

How Can I Raise Quinces?

So asks a correspondent in Lehigh county, and we answer that they can be raised as easily as apples or pears, in the way we shall describe. There is no secret about it. Get the "orange" variety. See that they are entirely free of the borer before planting. Set six or eight feet apart in rich soil. Bandage the stem with two or three wrappings of old muslin, or any kind of cloth, as far down in the ground as possible, as the roots start from near the surface. Let this bandage run six or eight inches above ground, then pile the soil compactly a couple of inches around the bandage, and renew this early every spring. Fine, large golden quinces, rivaling the largest oranges, will bless your efforts annually.

Should the borer by any means steal in, ferret them out carefully with a piece of wire. Should they, however, get the advantage of you and your trees become honey-combed, set out again young trees, so that by the time the old ones are gone, the young ones will be finely in bearing. We have raised these quinces in perfection, but not caring for the fruit, they were removed when they were about to die from the operations of the worm.

—Ger. Tel.

Fruit Trees.

- When fruit trees occupy the ground, nothing else should—except very short grass.
- 2. Fruitfulness and growth of the tree cannot be expected the same year.
- 3. There is no plum that the curculio will not take, though any kind may sometimes escape for one year in one place.
- Peach borers will not do much damage when stiff clay is heaped up round the tree a foot high.
- Pear blight still puzzles the greatest men.The best remedy known is to plant two for every one that dies.
- 6. If you don't know how to prune, don't hire a man from the other side of the sea that knows less than you do.
- 7. Don't cut off a big lower limb unless you are a renter, and don't care what becomes of the tree when your time is out.
- 8. A tree with the limbs coming out near the ground is worth two trees trimmed up five feet, and worth four trees trimmed up tenfeet, and so on till they are not worth anything.
 - 9. Trim down, not up.
 - 10. Shorten in, not lengthen up.
- If you had your arm cut off, you would feel it to your heart—a tree will not feel, but rot to the heart.
- 12. When anybody tells you of a gardener that understands all about horticulture and agriculture, and that he can be hired, don't believe a word of it, for there are no such to be hired. Such a man can make more than you can afford to give him, and if he has sense enough to understand the business, he will also have enough to know this.—Mass. Ploug-

Fruit in Maryland and Delaware.

The National Journal, of Philadelphia, in answer to a correspondent in New York, who seeks information as to fruit culture in these States, says:

"We are strongly impressed with the belief that the State of Delaware and the eastern shore of Maryland are destined to be 'the fruit garden of America.' The sedge fields, forests and pines are giving way rapidly to extensive peach orchards and acres of small fruits. Four gentlemen of this city have, within the past eighteen months, invested over \$160,000 in the purchase and improvement of land in Somerset Co., Maryland, near West-

over Station, on the Eastern Shore Railroad, a continuation of the Delaware Railroad.—One of the parties says that up to Nov. 26th last, he had planted 250 apple, 250 pear and 16,000 peach trees. He had also set out 16,000 blackberry, 2,000 raspberry and 27,000 strawberry plants. He purposed planting last fall 200 plum and 100 quince trees. A neighbor of his put out last fall 55,000 peach trees, and will go largely into the cultivation of small fruits. At the next station below, another gentleman has planted 20,000 peach trees, 1,000 pear trees, and will also engage largely in trucking."

A Discovery.

The Rural New Yorker publishes as the recent discovery of "a Kentucky tobacco grower," the following, which may be found in our Monthly Farm Notes for twelve years past, and originated, we believe, in Florida. It has been practised very successfully in Maryland for many years, where neighbours agree together to apply the remedy.—ED. Am. FARMER.

DESTROYING THE TOBACCO MILLER .- A Kentucky tobacco grower has discovered a method by which the tobacco fly or miller may be easily exterminated. By watching the insect it was found that it was fond of sucking the bloom of the Jimson or Jamestown plant, which infested the tobacco ground, As an experiment, he adds, "I procured from a druggist about an ounce of pulverized fly powder, or fly stone, mixed it with water, making it very sweet with honey, (sugar or molasses will do as well,) put it in a half-pint bottle with a cork stopper, into which I inserted a goose quill. Thus armed and equipped, I went every evening between sunset and twilight and dropped about three drops of the mixture into the 'Jimson,' and the next day would pick up handsful of the insects lying dead under the nearest trees, or in the cornfield close to the tobacco patch. So eminent was my success in destroying them, that many of my neighbors were induced to try the experiment, and the consequence is that the crops in our neighborhood are much less in-jured by them than usual. The poison de-stroys that particular bloom as well as the fly. Seeing this, I go every evening and drop it into the new ones which form in the next twenty-four hours. If every planter would follow this practice, that particular race of destructive insects would soon become exAn Essay on Colic and Bots in Horses.

Written for the "American Farmer" by G. H. Dadd,
V. S., Baltimore, Md.

Entered according to Act of Congress, in the year 1968, in the Clerk's Office of the District Court for the District of Maryland.

Concluded from July number-page 8.

The reader is now in possession of what information I am able, at the present time, to furnish in regard to colic and bots; it will be perceived that the diagnostic symptom of flatulent colic is flatulency, accompanied by abdominal distension, and that the diagnostic symptom of spasmodic colic is spasm or cramp of the bowels; so that when an animal becomes the subject of either one of these maladies, there need be no mistake about the matter, as is often the case, by declaring that the horse is suffering from, and tormented by, bots. And the same remarks apply to almost all diseases to which domestic animals are subject. Each and every disease has some peculiar symptom or diagnostic key note. which enables the educated pathologist to determine the exact location and nature of the affliction, so that he can treat a given case understandingly, and with unerring certainty prognosticate the result. In order to do this, however, it requires that the practitioner shall be well educated in all that pertains to the principles and practice of veterinary science. This knowledge becomes the property of the industrious and devoted student; to all others it is denied. Taking this view of the subject, I am constrained to offer the following additional arguments in favor of veterinary education in the United States, as a proper and necessary sequel to this essay, which I think would not be complete without it; at the same time I shall offer a plea in favor of those "bereft of speech," who cannot plead their own cause.

VETERINARY EDUCATION.

Veterinary science has for its object the preservation of health and the restoration from disease of all classes of domestic animals; yet at the present time I shall merely aim to shew the benefits to be derived, in some of its applications, to the horse only, leaving the reader to estimate its real value when exercised on other animals in the treatment of their various disorders. Suppose we take a peep in the vicinity of the forge. Previous to the establishment of a veterinary college in England, great numbers of horses became prematurely unserviceable in consequence of

faulty shoeing and a lack of knowledge in regard to the anatomy and function of the foot, the natural consequence of which was heavy losses and continual expenditure, without profit. In the course of a long experience it was ascertained that, by skillfully shoeing a horse, many of the most formidable diseases of the feet were prevented, and others so improved, as to enable the horse to travel with ease to himself and safety to his rider, and thus the usefulness of the animal was pro-On the other hand, when horses longed. were shod by men having no knowledge of the structure and function of the feet, thousands of the East India Company's horses were yearly "cast" for death, because their feet were incurably diseased; "no foot, no horse," but when the eye of science guided the hand of the blacksmith, corns, laminitis, from contraction; bruise of the sole, and various other foot maladies, all occasioned or aggravated by the errors of the forge, soon disappeared. Let us contemplate for a moment the ignorance that is so often displayed in this country in the management of horse's feet. We often see the sole, bars and frog so mutilated, and pared so thin, that the animal is liable to become lame the moment he treads on a stone or other hard substance; and the foot is so prepared, by means of knife and buttress, to fit the shoe, when the reverse should obtain, and what is still worse, the redhot shoe is applied without regard to consequences.

Some people seem to suppose that a horse's foot is an insensible piece of mechanism, and when they see a smith hacking it without mercy and applying red-hot plates of iron to the sole, it would seem to justify such conclusion. I grant that the horny covering of the foot, like the nails or hair of man, is void of sensibility, but we must bear in mind that it has important functions to perform, and serves as a wall of defence to the sensitive parts within its circumference. The direct tendency of undue paring and burning, is to contract the hoof and seal up its excrementitious outlets, and contraction of the hoof inflicts on the animal the worst of all torments.

On making a careful examination of the hoof, we shall find that it is a most wonderful and delicate piece of mechanism. The inside of the hoof is lined with a complicated set of laminæ—leaflets; into these are inserted a similar set, which arise from the external

tunic of the coffin-bone. The number of these laminæ are one thousand; each laminæ presents two sides and a terminating edge, which articulate or moves upon their surface; thus we have three thousand articulatory surfaces. A careful dissection of these parts gives us four square feet of surface within each hoof; hence it follows that a horse has, within his four hoofs, sixteen square feet of surface as a base of support to his body. Taken as a whole, the foot is the most wonderful piece of mechanism in the whole animal economy. The complexity of the nervous filaments and the high state of vascularity of the foot, render it more sensitive than any other part of the body; hence the need of more light on this subject, in view of accomplishing in America what educated veterinarians have done in Europe.

The object of veterinary science is not only congenial with human medicine, but the very same paths which lead to a knowledge of the diseases of man, lead also to a knowledge of those of brutes. An accurate examination of the interior parts of their bodies-a studious survey of the arrangement, structure, form, use, connection and relation of these parts, and of the laws by which they are intended to act, as also of the nature and properties of the various kinds of food and other agents. which the earth so liberally supplies for the support of life and the treatment of disease; all this, and more that I might mention, form in a great measure the foundation of all medical science, whatever living creature be the subject of the exercise of our professional

Our domestic animals, when sick, deserve the attention of humane and educated men; they are entitled to an intelligent and merciful system of medication and nursing; we have tried all manner of experiments on them; by means of vivisection, etc., for the benefit of men and science, therefore science and scientific men ought to repay the debt, by alleviating suffering and by improving the condition of nature's menials.

Some persons have an idea that it is beneath the dignity of an educated physician to prescribe for the ailments of a horse—but this is sheer prejudice, and is fast giving way to more rational thought and procedure. The fact is, physicians of all ages have applied themselves to the dissection of animals, and it was by analogy that the doctors of Greece and Rome

judged of the structure of the human body. For example: The Greeks and Arabians confined themselves to the dissection of apes and quadrupeds. Galen has given us the anatomy of the ape for that of man; and it is clear that his dissections were restricted to brutes, when he says that if learned physicians have been guilty of great errors, it was because they neglected the dissection of animals.—History informs us that most of the organs and functions of the body of man were first discovered and demonstrated on brutes; for example, the esophagus, fallopian tubes, organs of sound and respiration, were first discovered by dissecting the body of a kid.

Galen demonstrated, by experiment on living animals, that it was possible, in certain cases, to restore suspended animation by inflating the lungs artificially, and in consequence the lives of many of our race have been saved. The salivary glands were first discovered in an ox, and thoracic duct in a horse. The immortal Harvey, aided by experiments and vivisections, discovered and demonstrated the circulation of the blood. The lachrymal gland, organs of taste, excretory duct, pancreas, and even the peristaltic action of the intestines, were first discovered in animals. In short, the greater portion of the organs and functions of the body of man were first discovered in animals; and in regard to surgery, we know that very many of the most intricate and important operations now performed with safety on man, were first performed on brutes. Hence our indebtedness to the brute creation, and the reason why veterinary science is respectable and useful.

I advocate the establishment of veterinary schools in the United States, and the cultivation of veterinary medicine, on the broad basis of humanity; for these poor animals of ours are as susceptible to pain and suffering as we are; they furnish our support and promote our pleasure, and being cast upon our eare and placed under our protection, it is proper that we should be able to give a good account of our stewardship. Humanity calls upon us to relieve suffering whenever we encounter it, and the more friendless the sufferer, the more honor does it reflect on the good Samaritan. There is a wide field for the exercise of charity and philanthropy towards the inferior orders of creation in this country. See how unmercifully some of the equine species are treated; in some cases very

little regard is paid to their health, strength or condition; they may be aged, lame, weak and diseased-they must go ahead-never slacken their pace; and ofttimes when unable to draw the heavy burthen imposed on them, they are most outrageously chastised and abused, the driver at the same time tugging furiously at the reins. Then, again, how often do we see in our streets, poor jaded horses, their bones almost bursting through the skin, with necks and breast galled to the red flesh by clumsy collars; then look at their filthy condition, their drooping heads and sunken eyes; and often in the most inclement season of the year, we find them standing in the streets for hours, exposed to wind and rain, perhaps both hungry and thirsty. If "the laborer is worthy of his hire," surely a horse is entitled to good usage and enough of food and water.

Great improvements have, however, of late taken place in the construction of stables, and more attention is given to the general management of the horse; yet we can find plenty of stables where the equine inmates are located in a filthy, narrow stall-no chance to lie down in comfort; hence they have but a standing chance; in consequence of which the capsular ligaments, muscles and tendons become wirey, and the animal is fatigued ere he leaves the stable for the performance of his daily labor. The atmosphere in some of our stables is of the very worst kind, saturated with the ammoniated gases arising from excrement, urine and foul bedding; unfit for respiration, and a most potent cause of unnecessary disease and premature mortality.

Finally, it is to be regretted that in a country like this, so eminently endowed with all the facilities necessary for diffusing veterinary knowledge, that it should be almost entirely neglected. In almost every other department of science and art the spirit of enquiry is abroad; investigation is active; improvements are treading on the heels of improvement; yet in the department to which I allude, with very few exceptions, everything is left to chance and ignorance. The merchant, previous to sending his ship across the Atlantic, seeks a skillful navigator to pilot the vessel into her destined haven with safety-he protects his property against the perils of the ocean. We protect our property against the ravages of fire, by insuring the same; we defend our houses and barns from the effects

of lightning by conducting the electric fluid down the sides of the building into the earth, where it shall become harmless. And shall we not protect our animals from the ravages of disease, and provide a means for their restoration when suffering the torments of sickness and lameness?

I appeal to American husbandmen; it is for their interest to educate young men for the practice of veterinary medicine and surgery, for the beneficial results will be, that the diseases incidental to live stock will be better understood, and the great losses, which are now constantly occurring, will soon be diminished, and our veterinary colleges, when inaugurated, will prove to be the very best live stock insurance companies that were ever organized.

Gardening for Northern Markets.

We have spoken of the progress and profit of this business, which, in many parts of the South—particularly the seaboard, from Norfolk to Jacksonville—is destined to expand iffto a gigantic development, and constitute one of the most lucrative employments of the time.

To the Charleston Mercury we are indebted for a statement of operations in this line from that port since the third week in May, when the trade opened. The Mercury reports a total shipment by steamers so far of 7215 packages of potatoes and other yegetables, which, averaged at a value of \$7 each, are worth \$52,505 cash, and the same rate of shipments for the whole period will show a cash value of \$315,630 from crops which, says the Mercury, have been produced within a circle of eight miles' radius of St. Michael's spire.

So soon as the demand for vegetables is over, peaches will come on, of which Charleston will ship 50,000 bushels, which will bring at least \$150,000 more.

Savannah is an active rival of Charleston in the same business, and we are credibly informed that the banks of the St. John's river, in East Florida, are now almost a continuous garden, producing fruits and vegetables for the Northern markets. This business is destined to assume grand proportions very soon.—Ex.

The highest peak in Colorado is Mount Lincoln, 17,000 feet high.

Contagious Diseases.

During the progress of certain disorders, there are given off from the sick body specific organic particles which possess a wonderful power of self-multiplication, and which, if they come into contact with living animals, are apt to develop the same disease from which they originated. Disorders thus propagated are recognized as catching, contagious, or infectious. They include, amongst horses, glanders, strangles, influenza, and typhoid fever; amongst cattle, pleuro-pneumonia, mouth-and-foot disease, rinderpest, and vaccine pox; amongst dogs, distemper, typhoid fever, and rabies. Although intangible and not usually cognisable by the senses, the specific virus, or contagium, as it has been recently termed, possesses a distinct and positive existence. Judging from its behaviour it appears to consist of solid particles, or germs, or cells. That it is not gaseous is evident from the fact that most contagions retain their activity even after passing through the air, or being carried about on the clothes of men, or on other such articles. That it does not consist in a volatile fluid is tolerably apparent from the fact that admixture with water does not always destroy its reproductive power. From the careful philosophical investigations of M. Pasteur it appears now to be tolerably well ascertained that the matter of contagion, whether it came from the ulcerated nostrils of a glandered horse, from the teeth of a mad dog, from the body of a plague-stricken cow, or from any other source, consist of minute spores, germs or cells, which, under favorable circumstances, may preserve their vitality for some considerable time outside the body, may attach themselves to living objects, and may be carried uninjured through the air.

The unsuspected movement of such living organisms throughout the atmosphere is not so difficult to understand when we remember that the small seeds of mushrooms, mosses, and other such plants, are often conveyed in this way, for considerable distances. M. Pasteur has, moreover, recently shown that the atmosphere, especially in inhabited localities, is always filled with invisible organisms, which, when they fasten on suitable substances develop and multiply. In this way mould and other lower forms of vegetation spring up; various putrefactive changes are originated; whilst, what is still more to our present

purpose, pus is produced in worms from pus germs settling upon them!

When the contagious virus gains access to the living body, a period of quiescence or incubation occurs, which varies in duration with each virus, and even with the same virus under different circumstances. Mouth-andfoot diseases, for example, will sometimes show itself two days after the exposure to the contagion; whilst hydrophobia has appeared in animals several months after they have been bitten by a mad dog. But the living germs are not idle during this period of incubation; they grow and multiply. Like other growing organisms, the germs of any contagion require nourishment, which is doubtless extracted from the blood, or living parts with which the vital cells are in contact. Like other organisms, they probably also contaminate by excretions the body on which they feed. This ingenious view is lucidly set forth by Mr. Crookes, F.R.S., in his excellent Report on Disinfectants presented to Her Majesty's Cattle Plague Commissioners. "In the case of the best known ferment-yeastcells multiply by feeding upon the sugar in the liquid; alcohol and carbonic acid being their excretions. It is therefore probable that during the multiplication of the virus cells, they in a similar manner impoverish and weaken the blood, by feeding upon some element in it, whilst at the same time they excrete a poison to which the symptoms of the disease may be immediately due." Third Report, p. 187. In this twofold manner-by exhausting the constitutents of the blood, and polluting it by excreta-we may rationally explain the occurrence of the febrile symptoms, weakness, and generally disturbed and deteriorated state of system which usually show themselves even before any distinctive symptoms of the particular disorder are nokiceable.

So soon as the special symptoms of any contagious disorders are developed, the rapidly-produced germs of the virus are ready again to be given off, and to commence in other healthy bodies their career of destruction. Sometimes they are emitted from several different channels, as in the case of the cattle plague, which has been shown to be propagated by the mucus from the nostrils or mouth, by the discharges from the bowels, and even by the breath and the tears. Sometimes they appear to be confined more especially to

one secretion, as in glanders to the discharge from the ulcers in the nostrils; in cow-pox from the vaccine pustules; in hydrophobia from the mucus about the mouth. In Influenza, catarrhal disorders, and probably also in pleuro-pneumonia, the specific morbid matters appear to be given off chiefly in the breath. In typhoid fevers and other such cases, where the digestive organs are mostly implicated, the dejections from the bowels probably contain the active germs in largest amount.

As the more familiar organic poisons, such as strychnia, prussic acid, hemlock, or ergot of rve, differ in their rapidity of effect, their potency, and their, modus operandi, so likewise do these organized viri or contagions. Thus cattle plague poison, possibly from its greater diffusibility or tenacity of life, is more virulent than the virus of the mouth-and-foot disease, or of influenza; a very small dose suffices to disturb health, it travels uninjured long distances, it grows and multiplies even in the bodies of the healthiest cattle. Some of the contagious viri are so potent and destructive that no victim survives an attacksuch are glanders and hydrophobia; others produce a mild and transient disturbance of health, such as vaccine pox, mouth-and-foot disease, and many cases of strangles; many confer an immunity from subsequent attacks, probably by removing from the blood those substances in which the germs grow and multiply. Some of the contagious viri only exert their reproductive powers when they are placed under the skin, or mucous membranes, or get access to the blood itself. The more diffusible and dangerous viri will travel, however, through the air, adhere to fomitæs, and gain access to the body of their victims through the respiratory membrane, or even through the digestive apparatus.-North British Agriculturist.

Soiling Milch Cows.

The following is an extract from Mr. P. Stedman's paper on Dairy Stock and its management, read before the Franklin Club of Massachusetts:

Much has been said and written upon summer feeding or soiling, compared with pasturing. Here, as in many things which relate to agriculture, no definite rule can be given.—
We must be guided by the condition of the

soil, location and other contingencies. In sections where natural pasture land are scarce, or where land is valued at a high price, and is easily cultivated, the advantages of soiling can hardly be over-estimated; while for the larger portion of New England it would not be good economy to adopt this system to any great extent. Yet I think there are few if any dairymen who would not find it to their advantage to cultivate a portion of green fodder, to keep up the flow of milk during the usually warm and dry months of August and September. As food for boiling, I would recommend mainly, clover, oats and corn. A few feeds of early sowed rye may be used to advantage from the 10th to the 20th of May. This soon becomes woody and unpalatable, and is recommended only for early feed .-Green clover, on rich land, will be fit to cut about the 20th of June. Oats should be sown early in April, and again about the first of May, at the rate of four bushels to the acre. These will keep the supply from June 15th till July 13th. By this time, corn planted the first week in May should be fit to cut. The planting should be continued at intervals of two weeks, until the 10th of July. Such a succession as this will afford a regular supply of succulent food until the first of October. The clover may be cut three several times. either for summer or winter use, or the soil may be inverted and corn planted upon the same ground. The oat ground, which is cleared previous to the 10th of July, should be used for growing Swedish turnips. These I would sow in drills 30 inches apart, manuring in the drill, either with fresh manure from the cow sheds, with compost, or with special fertilizers. The latter I use, and recommend only when the supply of the former fails to be equal to the demand. All the ground cleared after the sowing of Swedes, and previous to the 10th of August, I would plough and sow to the common or English turnip, sowing the seed broadcast.

The quantity of land appropriated for soiling will vary according to the extent to which it is desired to pursue the system. One-fourth of an acre to each full-grown animal, appropriated in the way indicated, will produce an astonishing amount of the best feed for dairy cows, besides greatly enhancing the amount of valuable manure.

Paris is lighted by 33,859 street lamps.

Value of Virginia Lands.

Frank G. Ruffin, Esq., well known, for many years before the war, as the able editor of the Southern Planter, is contributing to the Cultivator and Country Gentleman some interesting papers on the value of Virginia lands, in which he undertakes to show, and backs up his showing with "confirmation strong" as true figures can furnish, that the "trucking lands" of Norfolk, Princess Ann, and Elizabeth City counties "are, by long odds, the most productive in the United States, leaving the West and California nowhere."

He comprises within the "vegetable garden" area most of the coast lands of the State from the North Carolina to the Maryland lines. Thirty farms offered for sale by an agent in Richmond, said by the advertisers to have good improvements on them, average in price \$15.70—ranging from \$5 to \$37 per acre.

We copy the portion of Mr. R.'s article, containing reports of sales and expenses on several of these truck farms, as made to the Seaboard Agricultural Society before the war:

REPORT ON FARMS.

To the Executive Committee of the Seaboard Agricultural Society:

We, the committee, appointed to examine the farms in Norfolk county, which should be offered for premiums to be awarded by the Seaboard Agricultural Society, at its annual exhibition in 1856, beg leave to offer the following report:

Four farms have been entered. Three by Mr. Cox, on the Western Branch; and one by Mercer & Joins, on Scott Creek.

On the 29th October we examined one of Mr. Cox's farms, known as the "Armstead Farm." It contains 100 acres, and has been under a lease to Richard Cox, for 12 years, ending with 1856.

It was furnished with horses, implements, &c., in the beginning, and the amount of farming capital has remained the same. The land was very poor, but by heavy manuring and proper cultivation, the fertility of the soil has been greatly improved—over one hundred per cent. The products of the farm are almost entirely trucks, consisting of tomatoes, peas, cucumbers, potatoes, &c.; and the labor is performed, principally, by hands hired from the north by the day or month.

statistics of his farming operations during this year, and they are as follows:

The amount of gross sales	\$17,125 28
Expenses, including everything	6,534.50
Or \$65.91 per acre.	
Net profit	\$10,534,50

On the same day we visited the "Fair View Farm," where Mr. Cox resides, which he purchased of Mr. Sayre, and this is the first year of his management of it. It contains 100 acres. The crops are the same as those on the "Armstead Farm." He attributes the large amount of his expenses that will appear, to his outfit or farming capital of horses, forage, boxes, barrels, &c.

On this farm, the amount of gross sales	\$13,852	.81
Or an average of \$138.52 per acre. Expenses, including everything	6,500	00
Or \$65 per acre. Net profit	\$7,352	81

On this farm the amount of farming capital is nearly established. Mr. Cox is now draining it to some extent, which improvement has been almost totally neglected heretofore, and which will tend greatly to the improvement in the quality of the land, and will adapt it more to trucking with greater profit. Although both farms consist of sand and sandy loams, yet the draining of all lands, in the opinion of your committee, is highly necessary for the early vegetation of crops in the spring, increase of crops, and lasting improvement of soils. He is now engaged also in erecting a large barn and stables, and improving his premises; and this farm bids fair to vie with any in this section of country.

On the 3d day of November we visited the farm entered by Dr. Mercer & Joins, which they lease of Capt. Carter, on Scott Creek. This is the second year of their lease, but it has been in trucks for the last 12 years. It contains 20 acres; soil sandy loam, fences good, draining neglected, field clear and partly ploughed. The amount of farming capital is now established, and no credit is given for it in our estimate.

The amount of their gross sales were as follows:

Gross sales	\$6,000	00
Or \$300 per acre.	7-1978	100
Or \$125 per acre. Clear profit Or \$175 per acre.	3,500	00

On the same day we examined the "Wilson Mr. Cox gives the amount of his sales and Farm," the third offered by Mr. Cox, but managed by Mr. William C. Fox. This has been leased for six years. It contains 25 acres, and lies on Scott's Creek. This farm has been greatly improved in fertility and neatness during the lease. The amount of farming capital is established. The fences are as good as needful, but draining totally neglected heretofore. The soil has been greatly improved in fertility, and the crops consist of the same trucks as those named above.

From this farm the gross sales were\$7,5 Or an average of \$216.70 per acre.	84	62
Expenses, including everything 8,3	71	45
Or \$96.32 per acre. Net profit	13	17

From what we have seen, and from the facts by which we can form a correct judgment, we deem it just and proper to award to Mercer & Joins the first premium of \$25 for their farm; and we award to Mr. Richard Cox the second premium of \$20 for his Wilson Farm, managed by Mr. Fox, and we award to Mr. Cox also the third premium of \$15 for the Armstead Farm.

J. E. READ, Chairman Com.
—Southern Planter, 1857, p. 361.

Compare now the farm of A. B. Chadsey of Wickford, R. I. The net profit of Mr. Chadsey's farm is \$1,252.27; his entire expenditure \$1,481.04, or a profit of \$41.74 and an expenditure of \$49.36 per acre.

The net profit of the four farms near Norfolk was \$105.34, \$73.52, \$175 and \$120.37 per acre respectively. The expenditure per acre was respectively \$65.91, \$65, \$124 and \$96.32.

The average expenditure was \$88.05, something less than double, and the average profit was \$118.44, or very nearly three times as much as was made by Mr. Chadsey, who "is called one of the best farmers in Rhode Island." We believe that a fair comparison of products would show a still larger balance in favor of Virginia, for the Yankee "consumes all his grain, hay and corn fodder, with one-half of the roots on the farm," and then credits himself with "the cash value," whereas "grain, hay and corn fodder" are things which the Virginia truckers cannot afford to make .-They buy such articles, and we presume do not charge what they eat, if of their own production. And yet many-not all, but many -people of the free States pity Virginia from the bottom of their souls !- Southern Planter, 1857, p. 451.

Put these lands at \$40 per acre, and we show a capacity of paying from 200 to 400 per cent. per annum. The figures look fabulous, but they are figures. Mr. Cox, who is a Jerseyman, settled his rent by his figures.

FRANK G. RUFFIN.

Summer Hill, Chesterfield Co., Va.

How to Make a Thick Osage Hedge.

Considerable anxiety is now being manifested by many farmers in regard to fences. Fencing material of all kinds, as well as firewood, is steadily growing scarcer and dearer. Fences on every hand decaying must be renewed in some way; and driven by necessity, farmers are gradually planting Osage orange and honey locust hedges. Many have tried white willow, but generally failed to make a fence, either through want of knowledge of how to manage it, or neglect, or both. We have some Osage hedges in this county fifteen years old, and there is no winter-killing; they are generally on sandy, gravelly ground, with a porous or dry subsoil.

I want to tell your readers how to grow or train the Osage so as to make a tight fence that will stop pigs, chickens, and even rabbits to a great extent. Set the plants eight to ten inches apart; cultivate well the first season. In the fall, mulch it well to prevent winterkilling. This mulching will keep the weeds down, with a little attention, for the next two years, and will also give a vigorous growth to the hedge. After three years' growth in hedgerow, plow a deep furrow two and a half or three feet from the hedge with landside of plow next the hedge; and have two men, one with a shovel, the other with buck mitts and thick boots to bend (not cut) the hedge, and tramp it to a horizontal position, or level with the ground diagonally with the line of hedge. Tramp the tops in the furrow, and throw dirt on them to hold them in position, leaving two and a half or three feet of the base uncovered. Thus treated, they will send up from ten to twenty vigorous sprouts from each plant. This being done in spring, the the latter part of June clip it within six inches. of base of sprouts. The September following clip it six inches higher, and continue the clipping semi-annually until your hedge gets the desired height, and it will be two or three feet thick at base, and impassable to man or beast-Correspondent Germantown Telegraph.

A Word for the Sheep.

Regarding the flock as indispensable to comfort on the farm, it has occurred to me to publish an account current, as nearly as I can recollect, of our flock of sheep, averaging fifty head during four years. It may interest some who are not tired of sheep, and may encourage others who are neglecting the few sheep they may have, with the view of abandoning the flock altogether. I think the items to the creditor side of the flock not liberal enough for services rendered. Their fare was rather meagre during winter, and their shelter only during the worst weather. Their services among the briars robbed them of one-fourth of their wool, and upon the whole they have had a pretty hard time, and yet the figures will show that they make a handsomer account current than almost any description of investment that can be started.

Flock of 50 Head of Sheep, in account with J C. McC., daring four years.

C. McC., darring jour years.	
Da.	
To cash paid for 20 sheep, at \$5	\$100
18 long-wool ewes, at \$8	144
10 cents per head per annum during four years. To 100 shocks of fodder per annum, at 15 cents, or	20
its equivalent in hay and oats	60
average	- 60
To 20 bushels wheat tailings, at 50 cts., or its equiv-	
alent in shelled oats	40
To summer pasture, at 25 cents per head	50
	2474
CR.	
By average of 200 lbs. washed wool per annum, at	
50 cents per lb	\$400
By 20 head wethers, sold at \$6	120
By sale 12 head, at \$6	72
use, at \$5 per head	200
By services rendered in the destruction of briars and foul weeds, 50 cents per head per annum	100
By services rendered in producing and scattering manure and setting grass seed, at 50 cents per	
head per annum	100
	-

Balance to credit of sheep 768

\$1242

By 25 lambs, at \$2 per head...

By proper management this amount can be doubled; as our loss of lambs has been very heavy from being dropped in cold weather, without proper shelter. Our loss from dogs has been considerable, and our loss from allowing ewes heavy with lamb to be among horned cattle at foddering, has been very great, but perhaps not greater than allowing them to get into the hogs' pens at night with the fatting hogs, from carelessly leaving the gaps too low. The ewes would get such a surfeit of corn as to kill them in a few hours.

I have not calculated an interest account on original investment and subsequent expense, as by crediting the flock with interest on profits, the balance of interest would be in their favor, just in proportion to the balance of account.—Cor. Country Gent.

Experiment in Feeding Leicester and Merino Sheep.

A recent number of the Country Gentleman gives an interesting account of an experiment made by Mr. Jurian Winne, in the neighborhood of Albany, N. Y., to ascertain for his own satisfaction whether the claim on behalf of the Merinos that if they weigh less than English sheep they also consume less food, and are equally profitable to fat for the market, is well-founded or a mistake. The whole number of sheep fattened by this gentleman the past winter was 901, of which 180 were Merinos. The aggregate amount realized for the whole has been \$12,049.15 net, that is, above all freight and expenses in New York -an average of \$13.37 per head, which, on so large a number, is extraordinarily good. By way of experiment, two lots were set apart, consisting respectively of 60 Canada Leicesters and 61 Merinos, they were weighed Feb. 10; a careful account was kept of all the food they consumed during the continuance of the experiment, 46 days, to March 28, when they were again weighed and sent to market. These numbers were thought to represent fairly the whole, and were taken as avoiding the trouble and additional risk of error, which would have been incurred by large numbers. The experiment began after both lots had been got in good progress-the previous and subsequent treatment of both having been precisely alike. The Merinos were an extra good lot, the 180 having been selected out of 600-and no complaint could exist against them, as we know by personal examination, on the ground of being below the best merits of their kind.

The following are the figures as regards weight, &c.:

Feb'y 10-60 Coarse Wools weighed	
Gain in 46 days	
kc.) for the 46 days. Feb'y 10-61 Fine Wools weighed	\$174 43 6909 lbs. 7389 lbs.
Gain in 46 days	480 lbs.

When both lots were sold, March 31st, the

former realized 10% cents per lb., and the latter 10% cents. A calculation in simple proportion will show that if the coarse wools gained 1008 lbs. at a cost of \$174.43 for feed, the gain of the fine wools at the same ratio upon an expense of \$144.78 should have been 836 lbs., whereas it was only 480 lbs., or a little more than one-half a proportionate amount as compared with cost. As compared with live weight, Feb. 10th, the coarse wools gained 11% per cent. in the forty-six days—the fine wools not quite 7 per cent.—Canada Furmer.

Game Fish in the Potomac.

We, together with all lovers of angling, are greatly indebted to Mr. George W. Harrison, Collector of Internal Revenue in the Fourth Maryland District, for the following extract-from a letter, written by W. W. Shriver, Esq., in 1860. Had Mr. Shriver lived in the heroic times of Rome or Greece, he would have received a civic crown as a public benefactor; as it is we hope he will ever be held in grateful remembrance by all who cast the fly or troll the spool in the waters of the lordly Potomac:

Extract from a Letter from W. W. Shriver, of Wheeling, W. Va., dated

SEPTEMBER 11, 1860.

"The experiment of transplanting the game fish of the Ohio river to the head waters of the Potomac river at the town of Cumberland, Allegany county, Md., was contemplated by me before the completion of the Baltimore and Ohio Railroad to Wheeling, but no satisfactory mode suggested itself until the completion of that work in 1853. In the following year I made my first trip, but made several afterwards in the same year, conveying the fish in a perforated bucket made to fit the opening in the water tank of the locomotive, which being supplied with fresh water at the several stations, kept the fish alive, fresh and sound; they were young, small and carefully selected. On the arrival at Cumberland they were put into the basin of the Chesapeake and Ohio Canal, from which they had egress and ingress to the Potomac river and its tributaries above and below the dam at Cumberland.

"I am pleased to learn from yourself and others, that this, my first piscatorial experiment, the object of which was to supply the waters of the Potomac with some of the varicties of game fish equal in size and quality to any that ever inhabited the fresh waters of any country, has been crowned with complete success, and I feel that I have been fully compensated for all the time, trouble and expense I have given to it. The following are the varieties of fish transplanted: green bass, varying in size from 1 lb. to 5 lbs.; perch varying in size from 1 lb. to 15 lbs.; salmon varying in size from 1 lb. to 13 lbs.; Jack salmon varying in size from 1 lb. to 3 lbs.; blue cat varying in size from 1 lb. to 20 lbs.

"These fish, from all I can learn, are not known to exist in any of the streams east of the Allegany Mountains from the Falls of Niagara, north, to the Gulf of Mexico, south, while they exist in every stream west of the Alleganies end in every lake and stream south and west of the Falls of Niagara and as far south as the Gulf of Mexico.

"These fish, like almost all fresh water fish, ascend the streams with the first rise in the spring, say April or May, for the purpose of spawning, and remain up all spring and summer, and descend with the first rise of water in the fall, say October or November, for the purpose of taking up their winter quarters in the deepest waters they can find."—Turf, Field and Farm.

Making Tomato Vinegar.

In reply to a query on this subject, published in our Club recently, Mr. S. H. Kridelbaugh, agricultural editor of The National Platform, Des Moines, Iowa, writes us as follows: "In your columns of the 9th May, 1868, I see an inquiry from J. D. T., Norfolk, Va., concerning tomato vinegar, and for his benefit, and all others who may have use for it, I here relate my process for manufacturing that article: Take one bushel of ripe tomatoes, wash them in an open tub, and add one quart of molasses that weighs eleven pounds to the gallon, and thoroughly mixathe whole together, in which condition let the tub stand several days, not neglecting to frequently stir the mixture in it. When a decided vinegar odor is given off, the juice should be strained from the pomace and put into casks, and let stand until the process is completed. Vinegar thus made is equal to the best, and to succeed in its manufacture only requires faithfully following out these directions .- Rural New Yorker.

Deep or Shallow Ploughing.

A Quaker farmer of Pennsylvania who has been disgusted with some of the fine theories discussed by the American Institute Farmers' Club, has been moved to write to that body as follows:

The bare fact that we do sometimes dig materials from the bottom of wells that prove on exposure more fertile than the soil above, is not evidence that the subsoil is always of like character. It has so occurred in my experience. When a boy, working for my father, who was a great admirer of Judge Buel, and the Cultivator of years ago, we set a bar shear plough built expressly for two pair of stout cattle, at 12 inches deep, and kept that depth throughout the field. The result was a very inferior crop, and some disappointment. I waited to see the improvement, but to my eye the damage was plain more years than friend Quinn has been ploughing in Jersey. Neither is it true that the system of farming pursued in those days has produced the evil consequences attributed to shallow ploughing, such as short, unhealthy growth, insect ravages, and diminished average crops. I am tired of this poor-mouthed croaking.

One would think, from the tenor of our modern papers, that the present farming community are a miserable set of thriftless blockheads, and that even our wives could not make a cup of coffee or cook a steak .-The truth is our system has doubled and trebled the produce of Chester, Delaware, and Newcastle counties, and advanced the price of land from \$18 per acre to \$150 and on upward. That system is generally practised in these parts to-day, and is founded on a seven-field course, first-Corn, with lime applied in quantity, and manure as suited the fancy of the applicant, mostly 40 bushels per acre, spread the fall preceding. Second-Oats, barley, or potatoes, or all of them, followed in the fall by wheat, with all the manure that could be made on the farm and seeded to grass, which was often allowed an annual dressing of 11 bushels plaster per acre, until that field's turn came again for corn. Some farms had other resources than the barn-yard for manure, but the great improvement of this section of country has been effected under this system of culture and by men nearly all advocates of deep ploughing. Yet our best farms are only ploughed eight

inches deep, and this depth has been gradually acquired. There are many of us who are fast growing to be old farmers, that remember the sedge grass and rabbit fields of our boyhood, which being brought under this process, are now the finest green grass pastures, and produce from 50 to 100 bushels of corn per acre. True, this system was established by our fathers, and in the old fogy times, but it has resulted in many thousand comfortable, and even elegant homes, churches, schools, mills, shops, &c., all built up by this shallow system. For this reason the club should pause before adopting friend Greeley's recommendation to turn this immense tract of highly productive soil upside down two or three feet under ground. Now I never wrote where there was danger of being printed before, but if thee would like to see the proof of these things, write me a note and I will attend to it, and if thee comes, I will show thee a broad extent of well cultivated country, an acre or two of old sedge grass yet, and some fine farms owned by men who started life as farmers as bare-handed as hands are made.

How to Fit Collars to Horses' Shoul-DERS.—It is very important to have a collar fit nicely and snugly to the shoulders of the horse. It enables him to work with a great deal more ease and to apply a great deal more strength. It prevents galling and wounding, as the friction is avoided. Collars are so made, or should be so made, as to throw the chief force on the lower part of the shoulder. The horse can apply but little strength on the upper part, and for this reason breast collars are coming grealty into vogue-as the strength is exerted on the lower part of the shoulder. But we started out to tell our readers how to make a new collar fit the shoulder of the horse. The collar should be purchased of the proper size; just before putting it on, the first time, immerse it in water, letting it remain about a minute, and immediately put it on the horse, being careful to have the hames so adjusted at the top and bottom as to fit the shoulder, and then put the horse to work. The collar, by being wet, will adapt itself to the shoulder, and should dry on the horse. when taken off it should be left in the same shape it occupied on the horse, and ever after you will have a snug fitting collar and no wounds .- Valley Farmer.

The American Farmer.

Baltimore, August 1, 1868.

TERMS OF THE AMERICAN FARMER

SUBSCRIPTION TWO DOLLARS PER ANNUM.

RATES OF ADVERTISING:

Ten lines of small type constitute a square.

	1 Mo.	3 Mo.	6 Mo.	1 Year.
One Square Half Column	\$2.00 8.50	\$5.00 20.00	\$8.50	\$15.00
Half Page One Page	15.00 25.00	85.00 60.00	60.00 100.00	100.00 200.00

PUBLISHED BY

WORTHINGTON & LEWIS.

New Office, 4 South Street, Near Baltimore Street,

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BALTIMORE.

A Good Quality of the Currency.—The subject of the currency is one full of interest and very much discussed all around us. It is a political topic, however, and forbidden therefore, we suppose, to an agricultural journal, whose talk must be mainly "of bullocks" and the like. There is just one quality of this currency, however, whose value is not sufficiently acknowledged, and to which we ask the special consideration of all true patriots, and particularly those who read the American Furner—it is the quality of coming so easily by mail, AFTER IT STARTS.

Let any body, who has not noticed this, try it, and within a week probably, he will get from us a receipt for a subscription, or whatever he may send, in proof of what we say.

The currency, it is not to be denied, is much below par, and, it will be admitted too, it has been very much "run down" in our common talk, though there is some proneness to keep it in our pockets. Let us be wiser and make the most of a bad thing by giving it the credit of whatever good may be in it, and by putting this good to a good use. Verbum sat sapientibus.

N. B. Subscriptions to this volume of the Furmer begin with the July number and are payable in advance.

Washing Machine and Wringer.—Those in want of this useful household article, are referred to the advertisement of the "Challenge" Washing Machine, S. W. Palmer & Co., Auburn, N. Y., manufacturers.

Grounds for the Agricultural Society.

At a meeting of the Executive Committee of this Society, held on the 9th of July, a proposal was made to the Committee, offering for the Society's Annual Exhibitions, the use of the Herring Run property, containing the Race Course, known by that name, on certain conditions. The offer, after consideration, was declined by the Committee.

Mr. Devries, President of the Society, and Chairman of a Committee appointed by the State Trustees to consummate the purchase of the Pimlico property, reported on behalf of the Committee, that the necessary papers had been prepared and signed by the parties to the sale and the Committee, and that it was his purpose to call on the Comptroller of the State Treasury for the sum of money appropriated for the purchase.

Gov. Bowie moved to appoint a Committee to call on the Trustees of the city fund, and ask their concurrence in the purchase made.

The Committee then adjourned to meet on the 16th.

On the 16th, the Committee met again, when it was reported that the Trustees of the city fund had refused to concur with the State's Trustees, and after some conversational discussion, it was determined to call together again, the State Board, sometime in September. We have failed to receive a copy of the record of proceedings.

Correspondence.—A friend, who dates from Memphis, on the Great river, and who is known to us only through The Farmer, kindly sends a list of nearly thirty names, and writes as follows:

"I regret very much that I have not the time (and what is of more importance, ability) to write occasionally for the "Old" Farmer. I can't say why it is, but I feel a greater attachment for your journal, than I can express or describe. It fills the place amongst papers that Mr.....does amongst men. There are no premiums, prizes, or yankee contrivances to drum up patronage. It goes forth upon its solid merits. "If you like me buy me, if you don't I am content," so the old fellow seems to say. I wish very much you had ten or a dozen thousands more of subscribers in the Cotton States. Our-people must learn about fruit, hay, stock, dairying, &c., and The Farmer is the best teacher I know of."

The Wheat Crop.

In the article of last number, headed "Crops and Prices," we noted the renewal of the stereotyped accounts of this time of year, from travellers in the rural districts, giving promise, six weeks before harvest, of enormous products of grain. We showed the folly of such anticipations at so early a date, and made this remark: "There is superabundance of straw, which if it escape rust, smut and storms, is still, not of that character that bears full crops of grain."

This was written two weeks before harvest. We give now the first reports of the thrashing from two of the best wheat growing counties of Maryland.

The Kent News says:

"Some of our farmers have thrashed their wheat, and the yield is much smaller than anticipated. The average turnout is about two-thirds of what might have been expected from the quantity of straw. The quality of the wheat, however, is said to be good."

Of Talbot county the Easton Gazette reports:

"Just before harvesting the wheat in this county it was supposed that heavy crops would be made, but many have thrashed their wheat and very small yields have been the result. We have heard of but one crop that has come up to anything like the expectation of the grower, and we doubt very much whether the expectations of the farmers throughout the county will be more than half realized."

The President of the Virginia State Agricultural Society, than whom, no one is more likely to be well informed, from his experience and intelligence in sifting reports of crops, says to us in a private note "I was glad to see your remarks on crops and prices. There is a studied effort to deceive on this subject. The crop of this year is no better than the last. The average yield in Eastern Virginia, will certainly not exceed five for one sown, and fertilizers, including Peruvian Guano, were largely used. So far as I have heard from the thrashing, the average has not reached that figure. The best within my knowledge was about six for one sown."

Yet at a date a few days later than this letter, we have the following, in one of our city dailies:

"THE VIRGINIA WHEAT CROP.-Reports

from all portions of Virginia give the most encouraging accounts of the wheat crop particularly along the James river and in the Valley. The crop is considered to be over an average one."

Apart from any studied effort to magnify the crop for the sake of bringing down prices, and from the careless and ignorant manner in which opinions are made from a mere show of straw in the field, there is an element in estimating crops in the straw which has been too much overlooked by those who otherwise judge well. We allude to the great difference of yield from the same appearance of straw, between the beardless white wheats and the bearded red. It is a difference of, perhaps, thirty-three and a third per cent. against the latter; which of late years have largely taken the place of the white wheats in our best wheat districts. The necessity for this change from productive to unproductive varieties is in other aspects a fact of very serious import to grain growers, which does not seem to have attracted the notice it merits.

Inspection of Fertilizers.—Notice was given in our last by the Superintendent of Labor and Agriculture, Dr. Wm. S. McPherson, of the failure of the Department to carry out the provisions of the Act of Assembly, for the inspection of fertilizers. Owing to a defect of the law, and the determination of leading manufacturers and agents to resist its execution, "by all legal means." It is understood also, that the same parties will make an effort to prevent a re-enactment of the law.

The objection to the law, made by the dealers, as given in the notice of the Super-intendent is, that "it would embarrass their trade," and be "expensive and difficult of execution."

We are not prepared to give an opinion of the force of these objections. We are very sure, that the community needs protection against a class of evil-doers in this trade, which a well devised inspection law ought to afford, and we have thought that such a law might be made acceptable to those who are doing a legitimate business in fertilizers. We will not prejudge the question however, and will cheerfully give place in our pages to a proper discussion of the difficulties and embarrassments which may practically beset the inspection.

Politics in Agricultural Journals.

The American Agriculturist, noticing, in its June issue, the appearance of a number of new Southern agricultural journals, proposes to give "a bit of advice" "to the editors of some of these sheets." It gives two "bits;" one on the matter of copying, without credit, the articles of the Agriculturist, and the other that "it is not proper for a journal, which professes to be agricultural, to discuss political topics."

We should be sorry to know that any of those alluded to, are obnoxious to the charge of deliberately appropriating matter from other journals without credit; we do know that accidental appropriations of this sort occur, much to the annoyance of all fairly disposed editors, who make up their journals, in a measure, with selections. The only two cases of flagrant plagiarism which we now bear in mind are, that of a journal considerably North of Baltimore, which, last year, month after month, transferred, without a sign of acknowledgment, to its own editorial columns, matter which had been published years before in our own; and that of the New York Weekly Tribune, which published several years ago as original, great columns, taken bodily from Youatt on the Sheep.

On the matter of politics, the advice of the Agriculturist would be good enough, if it were needed. The journals spoken of have their columns very well filled otherwise, and we do not recollect that one of them discusses political topics. We do note with satisfaction that no unmanly motives of policy tempt the editors of these journals to repress occasional utterances which come from "the fullness of the heart," and that in this way, their honest sentiments on topics of the utmost political concern, are frankly made known. It is this, we suppose, which the Agriculturist would have corrected.

If this be so, shall we ask in vain the wholesome influence of our contemporary upon its
Northern neighbours, for the correction of an
evil of tenfold magnitude. Very respectable
agricultural journals among them, publish,
continually, most atrocious calumnies against
the Southern people, gathered out of the very
gutters of partizan politics; and the most
melancholy and hopeless feature of the evil,
is that the people who publish them seem actually given over to believe them true. They
are told without passion, or, so far as we know,

any other temptation—in the cool and quiet columns of journals pledged, we should presume, to all the ways of peace.

We offer several illustrations, which came to our notice within a few hours of seeing the advice we speak of.

In the Mass. Ploughman, published at Boston, is a letter dated June 1st, from the town of Peabody, in that State, from which we make the following extract: "My advice, sincerely given to every New Englander is, to keep out of Florida; her taxes will soon eat up her lands; her Secesh will become humble through their poverty, and will not wish to impale her laborers' heads on stakes at the cross roads." A cool, serious, sincere slanderer, is this man, and pious enough, no doubt, to thank God daily, that he is "not as other men are." That the Florida "Secesh" have heretofore habitually impaled the heads of their laborers on stakes at the cross roads, is in the mind of the writer a fact so well established, that it is not worth while to assert it in positive terms.

In the Ohio Farmer, published at Cincinnati, we have a literary notice of "The Life of A. P. Dostie; or the Conflict in New Orleans," which the Farmer says is "a history of the troublous times in New Orleans under the misrule of Mayor Munroe and his rebel police, in whose eyes loyalty and patriotism was a crime to be punished with death at the hands of the mob."

In the Western Rural, published at Chicago, we have for family reading, after the manner of many of the journals, a story from Putnam's Magazine called The Blue and the Gray. in which the Blue hero, whose name is "Murry," and the Gray, whose name is "Clay," are brought into a Federal hospital. Murry is the embodiment of Northern piety and perfection, and Clay has given him a wound, not in honorable battle, but after the manner of an assassin. "Mercy" is a Northern angel in petticoats, who nurses them, and who discovers that Clay, not content with his failure to assassinate, has contrived also to convey poison to Murry, which being intercepted, the latter, nevertheless, dies of his wound. Northern Mercy then gives her special attention to the double assassin, convicts and converts him, so that "disloyalty," and with it all other sins, being put away, he comes out a new creature, and leaves his money to the family of his enemy. Such seems the tenor

of the story, which we have not, we acknowledge, followed closely to the conclusion.

These, and such as these, are not indeed political discussions, but of the very filth and foulness of partizan politics, served up daintily and sent out into all the quiet households of the North as food for the children, to inform their minds in all falsehood, and to cherish in their hearts all hatred, of those who, they are sometimes told, are their brethren. They are furnished by agricultural journals, which the Agriculturist says "should not discuss political topics."

Oredit for Borrowed Matter.—As germain to the matter of credits spoken of in another article, we make the following extract from our respected Boston contemporary, the New England Farmer, of July 18th:

"The Essay on the Management of Mares and Colts, read before the Concord, (Mass.) Farmer's Club, by John S. Keyes, and originally published in the New England Farmer, has been copied by many of our contemporaries, and by The American Stock Journal, without the usual and proper credit. We were not at all surprised at this, as that publication is largely made of original rehashes of articles that appear in the leading papers of the country, &c.

"Finding this valuable article on the management and breeding of horses in the columns of this journal, apparently as the production of one of its correspondents, the careful and gentlemanly editor of the American Farmer, Baltimore, Md., in copying it, gives credit in full, as he was justified in doing, to the American Steck Journal. If it is true, as the editors of this publication themselves say, that 'the value and interest of a periodical is very much enhanced by original, well written communications,' we hope they will be a little more conscientious in the use they make of the original articles of their contemporaries."

Pacific Guano.—The paper of John S. Reese & Co. on another page is worthy of attention, not only as setting forth the value of a standard fertilizer, but for its treatment of the subject of fertilizers generally. Mr. Reese has found it necessary, as a large manufacturer, to make the subject a special study, and whatever he may have to say has interest for all who expend money in this way.

Book Table.

THE PERCHERON HORSE-Translated from the French of Charles Du Huys, author of the Dictionary of the Pure Race, &c .- We are indebted to those enterprising publishers of agricultural works, Orange Judd & Co., of New York, for this interesting and valuable little work. Those who would become familiar with the characteristics of this horse of all work, will be satisfied in its pages, and find themselves at the same time instructed in the principles of breeding, which have been applied to the improvement of this breed. and are equally applicable to that of other draft breeds. The work is embellished with engraved portraits of the fine Percherons imported by Mr. W. T. Walters of Baltimore, through whose interest in this subject, the publishers say, they were induced to issue this translation of M. Huys' work.

Republication of the London Quarterly, Edinburgh, North British, and Westminster Reviews. and Blackwood's Magazine. By the Leonard Scott Publishing Company, 140 Fulton street, New York. The North British Review for June has recently been issued by the Leonard Scott Publishing Company, and completes their series of publications for the quarter just closed. This Review is a great favorite with many readers. Of the eight articles in the present number, those on the History of Writing, on Sleep, and on Louis IX. of France (Saint Louis,) will be acceptable to all classes of readers. Other articles are-Mistral's Mireio (a review, with many extracts, of a very pleasing Provencal poem,) The Greek Idyllic Poets, Memoirs of Baron Bunsen, Schools and Universities, Churches and Creeds. He must be hard to please who finds this number dull reading. The London Quarterly, Edingburgh, Westminster and Blackwood, come to hand regularly.

The New Eclectic, for August, is promptly on our table, with its usual interesting miscellany selected from the best periodicals. This enterprise, both for its intrinsic merits and as a Baltimore publication, is worthy of support. Messrs. Turnbull & Murdoch, the editors, deserve great credit for the judgment, good taste and industry which are manifested in its conduct. The magazine is handsomely printed.

Woodward's Record of Horticulture, No. II. Edited by Andrew S. Fuller, author of the Forest Tree and Grape Culturist. New York, Francis W. Woodward, 37 Park Row, office of the Horticulturist.

A Guide to the Study of Insects, and a Treatise on those Injurious and Beneficial to crops. For the use of Colleges, Farm Schools and Agriculturists. By A. S. Packard, Jr., M. D. With upwards of five hundred engravings. Part I. Price 50 cts. From the press of the Essex Institute, Salem, Mass. We heartily commend this publication to every one in the least interested in the study of our injurious and beneficial insects, a subject of the greatest importance to agriculturists and almost ignored by them.

Furmer's Gazette and Industrial Index, a monthly magazine, devoted to Agriculture, Mechanic Arts and Industrial Interests of the South. S. Bassett French, editor and proprietor. No. 1006 Main street, Richmond, Va. We hail with pleasure the first number of this publication, and heartily wish it the success that we know it merits.

It needed a brave man to undertake such an enterprise at such a time, alongside of our able contemporary, The Planter and Farmer, and we made free to say so to our friend, Col. French; but he is a brave man, and has, moreover, calculating qualities, and energy, and ability for this work, and hosts of friends. He has started for success and will, doubtless, have it.

The Southern Farmer and Market Gardener, being a compilation of useful articles on these subjects, from the most approved writers, by Francis S. Holmes, with a Treatise on the Cultivation of Rice and Cotton. A valuable Hand Book, published by "Holmes' Book House," Charleston, S. C.

R. H. Allen & Co.'s Illustrated Catalogue 15th edition.—We have noticed before this very handsome catalogue of nearly 300 pages, and about 600 illustrations, and call attention to the advertisement in this number. It is much too costly to be given away, and is offered to any one writing for it, at the low price of \$1. Any one wishing to be thoroughly posted in the matters of implements, tools, domestic animals, &c., will be well repaid.

Hermitage Nurseries.—Catalogue of Fruit and Ornamental Trees, Plants, &c., grown and for sale by Virginia Nursery and Wine Co. Allan & Johnson, General Agents; office 1506 Main street, P. O. box 438, Richmond, Va.

Fertilizers.—The season for the purchase of Fertilizers being at hand, we invite the attention of Planters to the various valuable articles offered, their respective claims appearing in our advertising columns. Up to the hour of going to press, the following claim our attention:

Redonda Island Guano.—Messrs. William Crichton & Son, General Agents, offer this article at the low price of \$30 per ton, and present a number of new certificates of its success.

Of the well known and established Fertilizers.—Messrs. John S. Reese & Co. offer the Soluble Pacific Guano and Flower of Raw Bone.

Neale, Harris & Co., General Agents Patapsco Guano Co.—their Ammoniated Soluble Phosphate.

B. M. Rhodes & Co.—Rhodes' Superphosphate.

Sam'l Townsend & Son, Agents—Lister Bros. Fresh Bone Superphosphate.

Lodi Manufacturing Co.—Poudrette, Bone Dust and Nitro-Phosphate of Lime.

Geo. Dugdale, Agents for Baugh & Sons' Raw Bone Phosphate and various other fertilizers.

Baltimore City Manufacturing Co.—A variety of articles, including Compost, prepared at their works near this city.

R. J. Ruth & Co.—Berger & Butz's Excelsior Superphosphate of Lime,

P. Zell & Son—Raw Bone Phosphate and Superphosphate.

Andrew Coe's Superphosphate—Herbert & Hairston, Agents.

The our advertising pages will be seen the cut of the Napoleon III. strawberry—the following description of which has been furnished by Messrs. Edw'd J. Evans & Co., Central Nurseries, York, Penna.:

Fruit large, to very large, irregular, flattened, varying from oval to cockscombshaped; color handsome rosy-red, shading to darker red in the sun, and waxy-blush in the shade; flesh of snowy whiteness, firm, and of sprightly high flavor, with a delicate aroma; the plant is very vigorous and healthy, with large dark green foliage, which endures the sun remarkably, and is very productive, in some localities exceeding even Wilson's Albany; flowers perfect. In season it is later than the Wilson, succeeding it and continuing long in bearing.

Originated with the celebrated strawberry grower, Mr. Ferdinand Gloede, Sablons, France, and has been fruited experimentally in various parts of the United States, during the past four years, with eminent success.

How Many Cabbages to the Acre.

The Dixie Furmer copies from another Southern paper a paragraph under this title, which has been passing around among our exchanges for several years. We only notice it, because the inexperienced among our Southern friends, many of whom are on the lookout for more paying crops, may be misled by it. It is as follows:

"The great cabbage growers about New York city generally calculated upon 10,000 head per acre, allowing four superficial feet to each plant, which gives the surplus of 3000 feet for missing plants. We suppose the average crop may average five cents a head, giving \$500 an acre, which, considering it is a second or third crop of the season, affords a pretty good turn. Cabbage often follow peas, with which radishes or lettuce has been grown; and ground from which an early crop of potatoes has been taken is often planted with late cabbages. The soil for this crop must be rich and manure used unsparingly. The gardeners prefer rotation for this crop, though cabbages have been known to grow upon the same spot a dozen years in succession. Near a city, there is no doubt about the profitableness of the crop; and it is a valuable one for cattle and sheep. It increases the flow of milk, but does not improve the quality. Irrigation is valuable where cabbages are grown, as they require a vast quantity of water as well as manure, with deep tillage and thorough cultivation."

We do not know what "the great cabbage growers about New York city" do, but we do know that around Baltimore, such a calculation as 10,000 head per acre for fall cabbages would be thought mere nonsense. Possibly small gardeners may sometimes plant as close as two feet each way, the very small early sorts, that they begin to thin out for market

before they loaf. The very least distance that the large late sorts allow is three feet each way, giving about 5000 to the acre. Prices will vary of course with the supply of the immediate market. We have seen very fine ones sold in the Lexington Market for \$2 per hundred.

Destruction of Stumps.—We have always objected to the use of machinery of any sort to take up large stumps in ordinary arable land, that they would take up inevitably a large quantity of earth with each, and leave a hole almost as objectionable as the stump; and moreover that after the stumps were out, there was trouble in disposing of them. The following suggestions, which we take from our neighbour, the Baltimore Weekly Leader, may be quite practicable, while they are not liable to the same objections. They are at least worthy of trial:

"We have heard of two methods of getting rid of stumps, which, as they appear feasible and inexpensive, we hope some reader will try and report upon: Bore with a two-inch auger to the heart of centre; fill the cavity thus made with sulphuric acid, or with crude oil of petroleum. In the first case, the acid becomes the destructive agent within a few months; in the latter, when the stump becomes saturated with the oil it is fired, and will then burn out to the last particle like a candle."

North and South.—We ask the attention of our readers in Maryland and more Northern States to the communication of Hon. Willoughby Newton, President of the Virginia State Agricultural Society, and shall be glad if his suggestions shall be responded to by those who seek investments.

KEEPING EABLY POTATOES.—A late number of the Southern Oultivator has the following: "In some localities the early crop of Irish potatoes will be ready for digging this month. We were very successful in saving the crop of last year, by digging after the vines were thoroughly dead, and before a second growth or sprouting of the tubers began—not allowing the sun to shine upon them, (transferring to the shade as soon as they were lifted from the ground,) and spreading them out in an attic room—not very dark—(light prevents them from sprouting.) When winter came, we removed them to a warmer place, and protected them with a covering of straw."

"What Shall We Do!"

LINDEN, Westmoreland Co., Va., July 12th, 1868.

Editors of American Farmer:

It has been a long time since I communed with the readers of your time-honored paper, which is intimately associated with many of the earliest and most agreeable recollections of my agricultural life. It is not my purpose now, to offer any practical suggestions for the improvement of agriculture. We already know far more than we of the South have the ability to put in practice. I design, with your permission, to present some thoughts, not without interest to our true friends in the North, and which are of the chiefest concern to the farmers of Virginia. The war stripped us of more than half our property. teams and agricultural implements were destroyed, and the population performing the labor of the farm, was suddenly released from all obligations to work. Debts, small in proportion to the ability to pay them, and necessarily incident to the patriarchal condition of slavery in Virginia, magnified in their proportions by accumulated interest and diminished means of the people, still remain to be paid. Our people were not appalled by these difficulties. They had lost the cause which was enshrined in their heart of hearts, and for which had been freely given their property and the lives of thousands of their noblest sons. They were not such hypocrites as to profess to be gratified at the result, but submitted to their new circumstances with a dignity and grace, and a sublime fortitude which commanded the admiration even of their enemies. If real peace had followed the war, we could have survived all its disasters. Self-denial, industry, energy and the devotion of the best talents of the State to the improvement of her agriculture and the development of all her internal resources. would soon have brought about our deliverance, if we had been permitted to work on, free from military domination and political agitation. But unfortunately it suited the purpose of our masters at Washington, though the State was conquered, and her people had submitted in good faith to the ruling power, to continue the war upon us for our personal degradation. The absurd and unnatural attempt to establish a negro government in Virginia, has wasted her resources, which were ample to meet her public ob-

ligations, and by continual agitation has so demoralized the labor of the State as to render all the enterprizes of her citizens abortive. To these great political evils, have been superadded a succession of bad seasons which have left the husbandman without the usual rewards of his toil. In this gloomy condition of things, many of our best men are almost in despair, hundreds are going into bankrupcy, that lions' den, from which there are "nulla vestigia retrorsum." And the anxious inquiry is on the lips of every one "what shall we do?" Some answer, subscribe to railroads and develop the mineral and other resources of the State. Who will furnish the capital? Subscriptions without means will not avail. Others say, cultivate smaller farms with more labor and larger capital. Who will supply labor and capital? Others again, ask, why don't you sell your lands? Who will buy? Every land-holder in the State has been diligently endeavoring to do this for the last three years. The newspapers are filled with advertisements, the numerous land-agents are offering thousands of farms for sale. It may be safely affirmed that, reserving family residences, nine-tenths of the land in Virginia may be purchased at a fair price. There is no necessity for advertisements or land agents. You may constitute yourselves land agents, and may sell at a venture, nearly all the farms in Eastern Virginia, not occupied as residences, and the proprietors will not only pay your commission, but give you many thanks and a most hospitable reception.

But what can we do? We have little else but land, and are extremely anxious to pay our debts. The kind people of the North have manifested a generous charity towards the people of the South. They have supplied clothing and food to the naked and hungry, and in a very noble spirit provided the means of education to children of the destitute.—These charities are very commendable, but they should be discontinued as soon as possible, lest they beget a chronic pauperism and dependance inconsistent with proper self-respect.

The farmers of Virginia are too proud to beg, and are unwilling to borrow, unless they could be assured of their ability to return the loan when demanded. Now I have a proposition to submit, through you, to our friends of the North, if we have them, which shall

be entirely consistent with our self-respect and their interests. We have much land for sale; a large portion of the proceeds, when sold, will go to pay Northern creditors .-Worthy gentlemen from Maryland and other States, frequently come among us, examine our lands, express themselves highly pleased, say that the lands are offered at very low prices, at about one-fourth of the price of similar lands in Maryland, yet they buy not. Why do they delay? Are they awaiting the expiration of the Stay Law and the general ruin of the people? We shall have no civil government, but the military power will be compelled to interpose to prevent this result. The North is overflowing with capital seeking investments. Would it not be safer for them to invest in lands at one-fourth of their value, within twelve hours of them by steam, than in precarious stocks? If left idle, the lands would be a good investment, but they are not waste; many of them are well inclosed, in the hands of industrious tenants, and pay in rents nearly or quite six per cent. on the price asked for them. They are perfectly clear of stones and grubs, and ready for fertilizers, the plough, the reaper and the drill. Capital and labor, which capital can readily procure, will at once make these lands exceedingly productive and more valuable than the lands of Maryland, New Jersey, or Delaware. We invite respectable settlers in any number, and will treat them with the kindness and courtesy for which Virginians are proverbial. But this is too slow an operation. We want capital by the million, that we may not only pay our debts, but be enabled to carry on our operations with renewed zeal and assured success. Every capitalist in the United States is interested in this result. Let them turn their thoughts in this direction; appoint one of you or some other judicious agents to make investments for them, and I will guarantee that they may invest many millions in Virginia, which will make them in a few years much larger returns than can possibly be realized by any investment in stocks. The whole State is open to them, but I could show them in a morning's ride many estates almost at the gate of the great cities, that may be purchased at prices that must be astonishing to observant men from the high priced lands of the North. This is a great national object, and if there be men in the North who desire to see a good understanding between

the North and the South re-established, and the general prosperity of the whole country greatly promoted, whilst they materially serve their own private interests, let them devote their capital without stint to this noble enterprize. Millions are wanted.

WILLOUGHBY NEWTON.

Mr. Hoepfner, to whom we are indebted for the following, came recently to Maryland from Germany, as the Agent of a Society of Immigration, to examine and report upon the suitableness of Maryland lands for German settlement. We hope to have other articles from him.—Ed. Farmer.

The German System of Agriculture and its Transferability to this State.

The reports about American agricultural relations, which come to Europe, are generally very deficient and refer chiefly to the New England States and the West, whilst we are perfectly ignorant of the condition of the agriculture in this section of the United States. Among the different representations we form about it, the idea is most impressive that soil, climate and other circumstances, require a system of agriculture which is materially different from the German, both in theory and practice; and if we come here and look at the farms of this country, we are apparently convinced of our notions previously made up. I say apparently, for a better knowledge of the practice of agriculture here convinces us very soon that neither soil nor climate is against the introduction of the German system, but that both favor it considerably. I hope to be able to prove this if I am permitted to define more minutely, in a series of articles, the chief criterions of the German agriculture.

Let us immediately consider the most important object, viz: the stall-feeding. The main point—in a certain degree the base on which agriculture rests—is the production of manure. We cannot always draw from the land, but must replace what we took from it, if we wish to enjoy its productiveness for a longer period; and this we can accomplish only by a rational, properly atranged stall-feeding. In this country the farmers let their cattle, horses, sheep and pigs graze in the open air during the summer and as long as the weather permits it. Left to themselves on extensive plains, the animals destroy in

the beginning, when the herbs are tender, two-thirds of them out of mischief, and then the remaining plants, which have become hard disgust their taste.

It is maintained that the dung of animals walking in the fields benefits them equally, but this is an error. The manure which the animals lose remains of course on the respective land. It is, however, a known fact that the animals prefer certain parts of a large field, either because they are shady, or for some other reason, and stay there closely together, whilst they avoid entirely other places. The consequence is, that the dung excessively accumulates on these places and other sections of the pasturing ground do not derive any benefit at all.

It is another known fact that the various kinds of animals have a disinclination of meeting together. The sheep does not eat where the hog has been; the ox avoids the place which the horse formerly frequented, and the latter that of the sheep. On a large pasturing ground, on which there are various kinds of animals, certain sections would exclusively be fertilized by certain species of animals, whilst we should endeavor to bring the different kinds of manure mixed together on the field.

The main objection to the walking at large of the animals is, however, that it causes the impossibility to improve the straw, spread out for receiving the animal excrement, and consequently injures the quantity and quality of the manure.

There will come a time (and we must hope at no far period) when the owners of large estates will no longer be able to let lie idle large sections of their splendid possessions, when every foot of land will have the same value as in Europe, and when the farmer will have to exert himself to draw the most possible production from the land, in order to compete with his neighbors. Then the value of a rational, systematic mode of manuring will be acknowledged. Many a one will be sorry, too late, for having exhausted certain parts of his farm, so that years are required to render them productive again; but every one will exert himself to promote the natural process by an increased production of manure, which is the fundamental base of all rational farming.

However, relata refero! everybody, even here, has acknowledged the advantage and necessity of stall-feeding. It is merely main-

tained that it cannot be enforced here for want of laborers, and because the hands necessary for getting the green feed, attending to the animals, and cleaning the stables, would cost too much. It is a matter of course that with stall-feeding more labor is required, and in the beginning the expenses would be heavy. but finally the planters will have no other choice left, if they want to keep pace with the progress of agriculture, but to acquire white laborers, although with heavy sacrifices of money; and as all capital which is invested in land, in a rational manner, will pay, so also this would bring good interest. Moreover, it must be considered that the erection of fences and keeping them in order causes yearly considerable expense and labor, which would be dispensed with by stall-feeding.

Stall-feeding is, however, not to be introduced suddenly and immediately, but gradually; and not until after a considerable time the farmer may expect to reap the fruits of his trouble and outlay in money, but they will be plentiful. Fields which are richly and systematically manured, will furnish the finest harvests in corn, wheat and rye, the straw of which increases the stock of manure; flourishing herds, the specimens of which may produce, by their well-built bodies, labor, milk, meat or wool, will adorn his farm, and no troublesome fences or hedges will hinder his free motion on his property or claim his constant attention.

In conclusion, I wish to mention the following: Nearly all parts of Maryland contain in its soil immense treasures of clay, shell-lime and green sand, which until now for the most part lie useless, waiting for the hand that raises them and makes them useful. All these means of manure are, however, of themselves of little value, but they become really invaluable if they are employed in connection with stall-manure. This is the case with all artificial manures, the effectiveness of which is increased by stall-manure, and thereby they acquire their proper value.

So much of stall-feeding. In the next number I shall endeavor to prove how much and intimately it is connected with another cardinal point of German agriculture, viz: the necessary change of the crops.

H. HOEPFNER.

Freshen salt fish by laying the flesh down; with the skin down, salt escapes only in part. Messrs. Worthington & Lewis:

The enclosed paper was written during the war, at a time when the circulation of your valuable paper to most of its old subscribers was challenged and forbidden in its monthly visits to them. I found it in looking over some old papers, and if you think it worthy of publication, it is at your service. I do not find our taxes growing less, now that war has ceased, but increasing. If you can draw from it a lesson of economy for your readers, it may not now be without some value.

Yours truly, A. B. D.

Sheep Economy.

Messes. Editors: I think I promised a short time since, to send you an article upon sheep economy. I am moved to redeem this promise by the consideration that economy is the great and fundamental lesson now to be learned by the American people.

Stimulated by the example of the Government in its lavish and wasteful expenditure of the people's money in its effort to crush the rebellion, and by the fictitious value given to all farm productions by its enormous issue of paper money, (greenbacks,) we are, I fear, fast lapsing into the belief that we are a rich and prosperous people-upon the flood tide of ever increasing and boundless wealth-and only looking upon the occasional visits of the inquisitorial assessor and relentless tax-gatherer as little episodes in this imaginary tide of prosperity-forgetful that when the tide begins to ebb and prices fall, and we again return to our normal condition, (if in the good Providence of heaven we shall be permitted again to return to our former condition of peace, happiness and substantial prosperity,) that our untold and almost incalculable load of debt will settle and subside also. Far from This mountain load of debt stands and grows, and until there is a turn in the tide of affairs, is destined to stand and grow as a perpetual and ever-increasing burthen upon the farmers' shoulders, and a tax upon the farm earnings; for although the newspapers lead us to believe that it is your Astors, Laws, Stewarts and others who pay their 5, 20, 50 and 100,000 dollars taxes to the Government, they conceal from the people the fact that these 5, 20, 50 and 100,000 dollars taxes are wrung from the toiling farmer-first, by deducting as much as they can from what he has to sell, and, secondly, by adding the balance to what he has to buy. It is the farmer, then, upon whom, in one shape or another—either directly to the tax-gatherer, or through the merchant and manufacturer, who buys the surplus productions of his yearly toil, or supplies him and his family with their necessary wants, that this mountain load of debt must fall, and rest as an incubus and eating-moth, until by economy and industry it can be lifted and thrown off. Economy, then, becomes the great lesson of the times, and though humble and homely it may be, my article upon sheep economy will not. I hope, be without its moral.

Some years ago harvest was succeeded by a wet spell of weather, and there sprung up over all of our stubble fields a spontaneous and luxuriant growth of what is known in this State as rag or bitter weed, sometimes I believe called in England hog weed. The growth was so rank that, if allowed to grow and ripen and shed its seed, the hard, dry stems would seriously interfere with the cutting and saving of the succeeding crop of hay which was expected from the field. So I determined to mow it in September, just as the seed began to turn brown, and if the weather proved favorable, to make it into hay for sheep. I knew that many farmers occasionally resorted to this kind of provender; among them the late Chief Justice Dorsey-not only one of the ablest judges of the many able judges that Maryland could boast, but also one of the best and most enterprising farmers of the State-who when his own farm would fail to supply a sufficient quantity, would seek it (this rag weed provender) of his neighbors for sheep provender. .

An Irish manager, acquainted with the management of sheep in the Old Country, volunteered to stack the hay for me. On visiting him, I find instead of stacking it in the usual way, he had commenced by putting the hay from this rag weed into little low ricks, about 9 feet wide, 7 feet high, 30 feet long, placed close together, leaving only space enough between the ricks for the sheep to pass and turn and feed from either rick, right or left, at pleasure. The ricks were placed at the southeast end of an old tobacco house. thus affording protection against northwest storms, and alternately about one-third above and below each other, thus securing as much protection as possible from east and west storms, and affording the sheep an opportunity to follow their natural rambling propensity of shifting their position from one alley to another. The whole of the ricks, when finished, were covered with a little loose straw, kept in place with light poles. With this protection, the hay—not being all consumed the first winter—was kept over a second, and eaten with great avidity by the cows and mules of a tenant, to whom the farm was then rented.

The economy of this mode of wintering sheep consists, first, in the cheapness of the provender (costing nothing but the labor of harvesting) and ricking; second, in affording at the same time the most healthful food, shelter and protection, in a way most natural for them, the flock of sheep; thirdly, in proving that this weed, indigenous to our climate, affords excellent food and provender for cattle and mules; fourthly, in removing an exhausting crop and an encumberance from the land; and fifthly and lastly, in converting a large mass of weeds and rubbish into the very best and finest quality of manure for food to succeeding crops.

For the "American Farmer."

Deep Culture and Drainage.

CLIFTON, Fairfax Co., Va., July, 1868.

MESSRS. EDITORS: In this month's number of the "Farmer" I find an extract from the "Saturday Courier" headed, "Deep and Thorough Culture." Reading this article, people might be brought to believe that "deep and thorough culture" alone would suffice to keep the land in heart and improve it. The usual term; "the land is worn out," the editor does not propose to admit, but says, "that the hygrometric change of the atmosphere has wrought a new condition of things, to which we must conform." We certainly are willing to admit, that for the last half century, a change has taken place, both in the atmosphere as well as in the duration of the seasons, but we must protest against the idea, that this change alone, is the reason for the diminished fertility of our soil. The reason why our lands, thirty years ago, produced fine crops by shallow culture, was not the greater moisture of the atmosphere alone, but also the presence of more nutriment found in the soil by the plants. By continuing shallow culture and taking off the land all the produce without returning to it any equivalent in the shape of manure, or other fertilizers, this nutriment has been so alarm-

ingly diminished, that some of our lands ARE perfectly "worn out." We admit, that this state of things can and ought to be remedied by "deep and thorough culture," BUT, ONLY in CONNECTION with manure or other fertilizers. The soil we turn up by deep culture is naturally dead, that is, the fertilizing qualities it contains, are dormant. To bring them into activity it requires dissolution and fermenting agents. Exposure to the atmosphere, sun and rain accomplishes this to a certain degree. but the process is so slow and the result so small, that it would not justify the labor and time spent. By advocating "deep and thorough culture," and in order to obtain the full benefit of the same, it also becomes necessary to proceed with thorough subsoil drainage, as far as the deep culture is extended. By deep culture the soil is enabled to absorb a vast amount of water. If this water does not find channels in the subsoil by which it can escape, it will remain stagnant and injure the crop, either by too much moisture, or by keeping the soil too cool, (for instance, early in spring.) "Deep and thorough culture," in connection with subsoil drainage, is the base on which we have to renew and improve our lands, but "deep and thorough culture," without sufficient drainage, is disastrous to all such lands where the subsoil is so compact as not to allow the surplus water to penetrate. In the same article the editor makes some remarks on the English mode of cultivating wheat and says: "When labor becomes cheaper and wheat dearer," &c. If we will wait for that time to come, when labor will be cheaper in our country, I am afraid we will have to live to the age of "Methuselah." There is no reason why we should not be able to obtain the same result in wheat growing, with our machines, as the English obtain by their hand labor .-The editor, in the same article, advocates a very poor substitute for drainage, by advising to plough the ground into lands about three rods wide. By ploughing the land continually in this way, all the top soil by degrees is brought to the middle, and from 6 to 8 feet wide along the drains only a poor crop will be obtained, even if this space is extra manured, because it will be subject to to much moisture at times. As an excuse for this mode of drainage the editor pleads "want of cash, labor and experience." But such excuse is worse then none. If the farmer is not able to prepare 20 acres as they ought to be,

let him take 10 acres, and prepare them thoroughly and he will harvest more from the 10 acres, then from the 20. If the farmer lacks experience, let him seek for it where he can find it, viz: in agricultural papers.

L. A. HANSEN.

Flies on Horses and Cattle.

Can you inform me how to prevent flies from tormenting horses and oxen while they are at work? If so, you greatly oblige a

Cairo. III. SUBSCRIBER. Cresylic acid black bar soap, for washing horses, cows, pigs, dogs, &c., to rid of and protect them from vermin, flies, &c., is in a convenient and cheap form. Flies, which so incessantly torment horses and cattle in stables and dairies, will not disturb them, if washed over twice a week with this soap. Use it like any other bar soap, but leave a light lather to dry when rubbing it well in. A farmer in this neighborhood used it last summer on his oxen, having it applied twice a week, on their going out to work. His cattle gained in flesh during fly time. I have used it on horses and cows. Its benefit is immediately observable. A horse, uneasy, fretting and stamping, becomes, after the application, at once quiet. Those who sympathize with the noble animals in the constant teasing endured by them from these pests, will be glad to use any harmless remedy which will spare incessant work when not called to labor in harness. Horses will keep better on a less supply of food for the repose thus obtained. Cows will give better and more milk from the rest that they will get from this mixture. One of my horses was severely cut inside the leg, near the stifle, where it could not be bandaged. The flies kept the wound continually irritated by their own bites, and causing the horse to nip at them. I applied some of the bar soap, and the irritants kept at a respectful distance, and the cut soon healed. The wood-fly being a blood-thirsty and determined little pest in our shady drives and in the fields, I tried putting the soap on the ears and neck of horses, with entire success, and now have the pleasure of seeing them return whence they came, with no blood to answer for. Dogs' ears often become raw and sore from the bites of the house-fly; here again bar soap preserves their peace and beauty. A very little applied, answers for a drive.—Stock Journal.

See advertisement of Hewes & Warner.— ED. FARMER.

Grasses in the South.

The following is taken from that able and excellent weekly, the *Mobile Sunday Times*, whose agricultural columns are edited by C. C. Langdon, Esq.:

The following communication is from a veteran Southern agriculturist—a gentleman of high character and great intelligence—who, before the war, was not only a large cotton planter, but, at the same time, a successful farmer, horticulturist, pomologist and stock raiser. No man in the South has done more than he to prove the perfect adaptation of our soil and climate to that diversification of pursuits which the "stern logic of events" has rendered necessary to the future prosperity of "the land we love." We will vouch for the entire truthfulness of all the statements of our correspondent. What he has done, others can do, if they will:

STONEWALL, Miss., May 21, 1868.

Hon. C. C. Langdon:

Under your "department," in the Sunday Times, I read: "The cotton theorists hold that farm products and the rearing of horses, cattle, hogs, &c., cannot be made to pay, or to compete with colder climates; because, they say that the grasses cannot endure the heat and dryness of our long summers. I am satisfied that this is a mistake, and I feel certain (!) that no scientific and careful test has yet been made of the fitness of our climate for these (I will call them) pastural grasses." See 6 page, May 17, signed "Ben Lane."

Will you allow Mark Twain to say he had clover in 1837 and up to May, 1863, when he abdicated his high calling in favor of the hired foreign soldiery of "the best government the world ever saw." There may have been "no scientific and careful tests," but, nevertheless, for over twenty years in latitude 82°, I had the clovers, having tried-the red, white, yellow, scarlet, as also of the grasses blue, timothy, orchard, red-top and largely of the Bermuda -at least enough of "pastural grasses." I call them the cultivated grasses to distinguish them from the wild grasses, or nature's, though some of these do not succeed unless the land is in a state of culture—the crab and crowfoot for instance. If "Ben Lane" had visited "Mark Twain" from 1840 to 1860, he would have seen those grasses. And I, a "cotton theorist," affirm after thirty-five years' experience-no science-in the cotton field, that we cannot "compete with colder climates," the same policy pursued. Change the policy, put the land in a state of drainage, when it will bear subsoiling 12 to 18 inches deep, then sow the grasses profusely, and Mark Twain pledges his good name, that no climate outside of the ruinated, spoiled Confederacy can "compete" with us.

When I left never to return to my home, I had largely, for my means, horses, cattle, hogs, sheep and goats, never permitting one of them outside of my fence unless taken out for use. I had brood mares, a pure Morgan stallion, an imported Jack, thoroughbred Devon bulls, thoroughbred imported Ayreshire bulls, and sent off just before I dodged out, after the clock on my mantel chimed "low 12," and lay out in the swamp until "peep o' day," and left forever, a Southdown ram, imported in his dam; he cost only \$600, with Southdown, and pure Saxon and Merino ewes. Sufficient. I had over one hundred head of horses, mules, colts, and fine cattle, that never needed to be fed from corn-house or barn, there being "pastural grasses" enough for them 365 days in each year. Others can do this if they will, and until Southern men become planters, and look the necessity of the thing square in the face, and act up to duty, we will be always dependent upon the Northern men and the Eastern, who have no more love for me [us] than I [we] have for them. I use somebody's fictitious name for this time.

MARK TWAIN.

Facts About Agricultural Machinery and Manual Labor.

In response to a request to prepare a paper on the foregoing subject, Hon. John Stanton Gould writes as follows: I will give you the facts upon which such a paper should be based, and I think you may venture to rely upon them with considerable assurance, as they are based upon a pretty extensive correspondence with men who are most likely to be well informed upon the subject, and from sources of knowledge which are opened to me as President of the New York State Agricultural Society.

- 1. There are 300,000 mowers and reapers in use in the United States.
- 2. The average cost of mowing machines is \$125; of reaping machines, \$175.
- 8. The average life of a machine is five years; some will use a mower or a reaper

twenty years; but the average number of farmers buy a new machine once in five years.

- 4. Of the 300,000 machines, five-tenths are combined mowers and reapers, three-tenths single mowers, two-tenths single reapers.
- 5. Assuming that meadows yield one ton to an acre on an average, one man with a scythe will mow an acre a day.
- 6. With a sickel, a fair day's work is half an acre; with a cradle, in wheat, two acres; in rye, one and a half acres; in oats, two and a half acres; in barley, two and a half acres. It is possible, perhaps, that the average work with a cradle may be put half an acre higher than the above.
- 7. A mowing machine will cut, on an average, ten acres, and a reaper will reap ten acres.
- 8. Six binders will keep up with a self-raking machine.
- 9. It is well settled that a mowing machine will cut closer and give more hay than a scythe. A reaping machine will also cut cleaner than a cradle or a sickle. I know of no experiments made with a view of accurately testing this difference, but I think it would not be overestimated at 5 per cent.
- 10. I estimate the total production of hay in the United States at 25,000,000 of tons; the amount raised in New York at 400,000
- 11. I estimate that 15,000,000 acres were sown in wheat in the United States, 2,000,000 acres in rye, 900,000 acres in oats, 1,000,000 acres in barley, making an aggregate of 27,000,000 of acres.
- 12. The average length of time occupied in securing the hay and grain, I estimate to be between six and seven weeks, in the United States.
- 13. It follows from this that the mowers and reapers in the United States dispense with the labor of about 200,000 men for about six or seven weeks in a year.
- 14. In point of fact, by the aid of harvesting machinery, the women of the country secured a greater number of the crops raised in the country during the war, without which it would have been impossible to have maintained our armies in the field. This labor performed by the women was not exhaustive of their physical strength or injurious to their health, nor did it impair their delicacy. It

consisted mainly in sitting in a comfortable spring chair, and in riding about the field.

15. About 90,000 mowers and reapers are annually made in the United States for this and foreign markets. The intelligent part of labor dispensed with in the field is therefore afforded a market at a much higher rate of remuneration in the workshop in making the machines, than are realized from the field by their introduction. Yet the aggregate amount of wages paid is greater .- Country Gent.

From the New Orleans Times.

Buper-Phosphate of Lime as a Fertilizer for Cotton.

To the Editor of the New Orleans Times-In the beginning of the year 1860, Mr. Lewis, of Washington parish, and myself, both ordered a few barrels of super-phosphate of lime, from D. C. Lowber & Co., New Orleans. Both of us applied it to cotton at the rate of some three hundred pounds per acre. Mine was applied by opening the ridge when I went to plant the cotton, and drilling it in along with the seed. The crop showed no gain whatever by the experiment-which failure we attributed to the fact that the fertilizer was applied too near the top of the bed for the cotton roots, which plunge directly downward, and thus derived no nutriment from the plant food deposited above.

My neighbor applied his by drilling in the furrow, and then forming the bed upon it, and the gain upon his experiment was very remarkable. In 1861 we both purchased a larger quantity, and both applied alike, with the most satisfactory results. The war prevented our using any more of this fertilizer till 1866, when we both again together, with several other farmers, purchased a considerable amount, made in New Orleans, by Oliver Pierce, Esq., and sold by Messrs. Kearny, Blois & Co.

The results were in every way satisfactory. On the 25th of August we counted on eight stalks of unmanured cotton only ten bolls, while on eight stalks manured with superphosphate of lime gave fifty-nine bolls.

Another count, still later in the season, gave as follows:

Eight stalks manured with hen manure gave 83 bolls.

Eight stalks manured with super-phosphate

Eight stalks manured with stable manure gave 135 bolls.

The experiment was tried upon the poorest land upon my place, and the entire result was as follows:

No manure gave per acre.....seed cotton lb. 316 300 lb. super-phosphate gave...... do. do. 505 Difference in favor super-phosphate...... 189 Net gain, or over 106 per cent. on outlay \$8 12

I have seen (and will refer to Mr. H. W. L. Lewis, of Washington parish, for proof, upon whose farm I saw it,) a very marked result in favor of the rows where it had been applied for four years after its application.

In 1867, quite a number of us farmers used this fertilizer, chiefly upon cotton, we all having that unfortunate staple heavy on the brain at the time. The great advantages of the fertilizer still were exhibited as remarkably as ever; but the worms, wet weather, and the dilatory labors of the freedmen, all conspired to put us out of heart, and I have no written data of the crop. The great fall in cotton. and extreme shortness in the crop, left us too crippled to use it this year; but our determination is good to renew our hold upon it next year. Mr. Lewis' experiment showed that while it took 104 bolls of the unmanured cotton to make a pound, that 85 bolls of the manured cotton gave the same result.

Mr. Morris, who tried it largely last yearon cotton, states that upon the same land where it was last year applied to cotton, that there is this year a difference shown in hiscorn growing where it was last year applied, of double. I have seen some corn growing land that last year was manured with superphosphate of lime, upon the farm of Mr. Cyrus Simmons, which is largely in advance of that which received no manure at all The change in rows upon my own corn land where it was last year applied to cotton, does not allow me to judge accurately of its advantages.

The price of this invaluable fertilizer is but two cents per pound by the ton, and the Jack-son Railroad, with commendable liberality, carries it to Osyka for 20 cents per hundred, and by the car load much lower than that, Dr. Alford, of Washington parish, reports having tried this fertilizer upon garden vegetables, side by side with Peruvian guano, and pronounces it as good as the atter for garden purposes. Some members of our Agricultupurposes. Some members of our Agricultural Club say that it is equally as good for corn as for cotton.

T. E. TATE,

Cor. Sec. Agr'l Club of Washington parish.

SUNDAY READING.

The holy Jesus endured pain in every part to expiate the sins which every part of us had committed. For the wicked imaginations of our heads, upon His was platted a crown of thorns. For the lust, the vanity, the envy of our eyes, His were bedewed with tears. For our proud looks, His face was spit upon. For the softness and effeminacy of our bodies, His was cast upon the ground, and then nailed to a hard cross. For the wanton sounds, the idle or profane discourses which our ears have been delighted with, His ears were wounded with bitter scoffs and blasphemous revilings. Our taste hath grievously sinned by gluttony and drunkenness, delicacy and indulgence; His was punished and insulted with vinegar and gall. Our "feet were swift to shed blood;" therefore His feet were nailed to the cross. - Our hands have been defiled, and His were bathed in blood. Thus we see His temples were tormented with the thorns, His cheeks with the rude buffets, His face with the spittle, His joints with the strains, His body with the stripes which we deserved. And lastly, His sacred heart was pierced with a spear for the unchaste, malicious, covetous, ambitious thoughts, desires, and affections, which lodged and reigned in ours.

Reject evil thoughts at the beginning, and they will fly from you. Lascivious thoughts, which are not resisted, cause delight; delight draws on consent; consent produces the act; from the act springs a habit; from a habit necessity; and from necessity, death. And, as the viper is killed by the young ones she carries in her womb, so we receive death by our vicious thoughts when we nourish them in our hearts.

Justice and integrity are always valuable, because they cannot easily be imitated. Professions of religion are easily made; religious phraseology is soon caught and copied; the Shibboleth of religious party may admit the indulgence of irritating and unchristian feelings; the external appearance of devotion it is very possible to assume, but real honesty of character, integrity of purpose, and justice, unbending to take an advantage or inflict a wrong, is neither easy to be attained, nor easy to be counterfeited.

Look into the Gospel, examine the places where the mind, the inward man, the inside of the cup and platter, are commanded to be purified. Consider how frequently this is pressed. Do not you see what a stress the Holy Ghost lays upon it? Why should you deceive-why should you delude yourselves? Why should you think it needless? Is it not wisdom to believe Him who is the Fountain of truth and wisdom? Does not reason, nay, does not sense tell you, that if the water in the spring be muddy, the streams and rivulets cannot be clear? What! would you have the fruit good when the tree is nought? How can your actions be pleasing to God when your minds are full of weariness and unwillingness. and backwardness in his service? Can the outward man be good when the inward is rotten and putrefied? Are you wise builders, do you think-do you hope to make a good piece of work of it, to build the top of the house, when you have not laid the foundation?

As in the articles of Faith, it is safest to believe what was first delivered, so in the rules of our manners it is best to observe what was first commanded. The reason is plain. God gave the first beginning both to our faith and our manners; and from our most wise and holy God nothing could proceed that was not most righteous and most true.

We should not be alarmed if bad thoughts come into our minds as well as good; but rather be thankful that we have the power, by a proper exercise of reason, to distinguish the bad from the good.

A dim, or blear eye, that looked upon the brazen serpent, did procure a remedy for a wound, as much as a clear and well-conditioned eye. And a little faith casting its weak beams upon Christ and His death, will go far.

The Lord weighs the heart, not the material offering; nor does He regard how great the sacrifice, but from how great store it proceeds.

Errors will be, like a mist, in time dispersed; but the Sun of Truth stands firm in the firmament of God's Church.

When the Publican smote his breast, he smote the very sins lodged therein.

THE PACIFIC GUANO COMPANY.

Capital \$1,000,000.

ITS PRODUCTS AND TRADE—ITS RELATIONS TO AGRICULTURE-ITS INTERESTS, POLICY, CHARACTER AND CLAIMS TO PUBLIC

CONFIDENCE.

It is an admitted fact that a concentrated commercial fertilizer, of real excellence, is an essential adjunct to successful farming in the Southern and Middlle States.

It is of the highest importance that such a fertilizer should be furnished at the lowest possible cost, in order that the outlay required may not preclude its general and liberal application. It is also necessary to the general use of such an article that the character, responsibility and facilities of the producers should be such as to afford a reasonable guarantee that the fertilizer brought into market may be re-

lied upon for present and continued excellence.
It is true that many farmers are deterred from the use of fertilizers, other than Peruvian Guano, by a want of confidence in their vian Guano, by a Game of Convinced of their present value. They adhere to Peruvian Guano though its price be too high to justify its liberal use, and though experience teaches them its defects, which are manifest in its tendency to produce excessive growth without corresponding yield; in its tendency to exhaustion; in its injurious effects in time of severe drought, &c., all of which result from the misproportion of its elements.

This want of confidence is not unnatural, and arises from two principal causes: First— Fertilizers have been placed upon the markets and commended to farmers, which either from ignorance or inability of the producers, or from less excusable causes, have proved from the first or after awhile of little or no value, to the serious loss of the consumer, both of

time and money.
Secondly—Disastrous seasons occur, in which crops fail from the intervention of natural causes, in which even the consumer is predisposed to ascribe the failure in part at least to the particular fertilizer used, however excellent it may have been, even though his neighbor realize as great a failure from Peru-vian Guano. The thought is suggested that, if Peruvian Guano had been used, the failure would not at least have been so great; hence a fertilizer possessing the highest value may be, and often is, hastily condemned, and its use retarded, to the detriment of the agricultural public. There is no power in Peruvian Guano or any other fertilizer to perform its functions if contravened by natural causes, else rich bottom lands would never fail to yield a crop, when it is a known fact they do fail as frequently as fertilized lands.

A beneficent Providence has aggregated the

crude elements of fertility in exhaustless quantities all over the world—upon islands of the sea, and in the sea itself and elsewhere.—Nature, however, does not yield her treasures without an equivalent. Coal is found embedded in mountains; the precious metals are held bound in the quartz rock, and are adapted to the uses for which nature designed them, only at the cost of lobor, enterprise and capital. So also these deposits in their natural state are not in condition for practical utility, but modern science has developed methods by which they are capable of the highest utility to the most important of all interests. Hence, while nature furnishes the crude material, and science the method, still there is required capital, skill, enterprise and labor.

The fertilizer introduced by us in 1865,

under the trade mark of Soluble Pacific Guano,

is the product of the

PACIFIC GUANO COMPANY.

It has been extensively used for the culture of all crops from New Jersey to Alabama, with results entirely satisfactory with no greater number of exceptional cases in consequence of unpropitious seasons, than have resulted from the use of Peruvian Guano. If the disinterested testimony of farmers is an evidence of truth, and we are sure it is, then it is true that results from this guano, like quantities per acre, have been fully equal to those from Peruvian Guano, and in not a few instance, superior on the first crop, while on grass and clover crops following, it has manifested an effect unknown to Peruvian, and it must be noted that the cost of this guano is so much less, that 300 lbs. may be applied per acre at little or no greater cost than 200 lbs. of Peruvian Guano can be applied.

In view of the importance of this trade, and the just demand on the part of consumers for assurances, first, as to the ability of the Pacific Guano Company to bring into market a concentrated fertilizer of the highest excellence, at the lowest cost to the farmer; and secondly, as to the claims of the Company to the fullest public confidence, we propose first to show what their facilities are; and secondly to show upon what grounds they lay claim to full public confidence in

their products.

First-The Pacific Guano Company is the result of a private association of a few of the largest shipping merchants engaged in the California trade in the United States, the primary object being to furnish return freights for their ships from the Pacific. This private association was subsequently organized into a stock Company with an actual cash capital invested and at command of \$1,000,000, and is unquestionably the strongest company in the country engaged in this important trade. Its stockholders are limited to but few in number, not exceeding fifteen, embracing some of the most respectable and wealthiest merchants, all of whom are actively engaged in business enterprises of trade and commerce.

The large capital of the company is the aggregation of surplus means, by reason of which they are enabled to accomplish results unattainable by private enterprise. Hence, the Company are the sole owners of the extensive deposites from whence they draw supplies of natural phosphate of lime, and the other elements which enter into the composition of their fertilizer, therefore, with these facilities they procure supplies at lowest cash cost of production, and do not pay profits and commissions to importers or intermediate parties.

The company has called to its aid the best scientific ability that ample means and liberal policy will command, and has acquired invaluable experience by years of patient enterprise. Hence, the Pacific Guano Company has the ability to bring into market the very best fertilizer, at the lowest cost to consumers, that ample capital and enterprise, aided by the

best scientific ability, can produce.

Secondly—We base the claims of this company to the fullest public confidence, upon reasons founded in the nature of things.—
Respectability and private character afford good claims to public confidence; on these grounds none can have higher claims, but we dismiss these considerations, because in a case like this, these qualities can not be known and

appreciated however excellent they are. Personal interest is esteemed to be the strongest and most universal motive to human action and policy, especially in matters pertaining to trade and commerce. Hence, if this company be judged on this principle alone, its claims to public confidence are of the highest character, unless it be assumed its policy is dictated by the grossest ignorance of its best interests. It must be seen at once that a company like this, with such large vested interests, must look to permanence in its trade through a long future, to render its capital secure and realize compensation for its investments. If it ceases permanently to earn dividends its capital becomes a total loss, while it can afford in its beginning to omit dividends, so that it build up a safe and permanent trade for the future.

The Pacific Guano Company must of neces-

The Pacific Guano Company must of necessity, continue to bring into market the best fertilizer that its unequalled facilities can produce, and, guided by an enlightened policy, it is recognized by them as their highest interest to put it into market at a minimum profit on its cost, by which policy its use is extended. The Company looks to small profits, large sales and a permanence of trade to insure reasonable returns on surplus capital invested in a

legitimate business of great public utility. It is a well recognized principle that capital aggregated from surplus means can be employed at a less rate of compensation than can be afforded by private capital; hence, it is true that in all enterprises in which large means facilitate economy in production, private resources cannot compete with aggregated surplus capital.

For the foregoing reasons it must be

conceded—First—That the Pacific Guano Co. possesses the ability to furnish the country with a fertilizer under its trade mark of SOLUBLE PACIFIC GUANO, of the highest real excellence, at the lowest possible cost to the farmer.

Secondly—That the only true policy of the company, dictated by ordinary prudential care for its interests, is to use all its resources to furnish the best possible products that its unequalled facilities can bring to the markets.

Thirdly—That its character, capital and material interests are such as in the nature of things furnish the surest guarantee of the continued excellence of their fertilizer, and entitles the company to the highest claims to

public confidence.

Fourthly—That a company like this, involving the permanent investment of large capital; founded upon a solid basis; the operations of which are managed by men of the highest mercantile standing; the products of which are adapted to the promotion of the most important of all branches of industry; we think we may say, it will be conceded, that a company such as this, sustains no unimportant relation to the agricultural in-

terests of the country.

Note.—It is necessary for us to note the fact that in consequence of the reputation acquired by the Soluble Pacific Guano, as brought into market by this company, the same name has been given to fertilizers of totally different character and quality, for which the Pacific Guano Co. is in no way responsible, and it is not improbable some have been deceived. Hence, it is necessary for us to caution consumers to see to it that they procure the genuine product of this company, the evidence of which is the names of the undersigned branded on each bug, as agents for the company, otherwise the article is not genuine.

JOHN S. REESE & Co., General Agents for the Pacific Guano Co., Baltimore, Md.

SOLUBLE PACIFIC GUANO

Is sold by the company's general agents, 71 South Street, Baltimore, Md., and at their branch office, 38 South Delaware Avenue, Philadelphia, Pa., and by local dealers throughout Maryland, Delaware, Pennsylvania and New Jersey, and by the following agents in Virginia, and by advertised agents in all the markets of the South:

Allison & Addison and A. Y. Stokes & Co., Richmond, Va.; Knox & Wattles, Alexandria, Va.; W. D. Reynolds & Bro., Norfolk, Va.; Thomas & Adams, Smithfield, Va.; Warren, Son & Co., Farmville, Va.; W. T. Clark & Co., Danville, Va.; Moore, Jones & Miller, Lynchburg, Va.; Ranson & Duke, Charlestown, Va.; Kerr & Brother, Staunton, Va. Local dealers can procure supplies from the above agents at usual rates of discount to the trade.

JOHN S. REESE & Co.

" Economy is Wealth,"-Franklin.

Why will people pay \$50 or \$100 for a Sewing Machine, when \$25 will buy a better one for all PRACTICAL purposes? Notwithstanding reports to the contrary, the subscribers beg to inform their numerous friends that the "FRANKLIN" and "DIAMOND" Machines can be had "FRANKLIN" and "DIAMOND" Machines can be had in any quantity. This Machine is a double thread, complete with Table, constructed upon entirely new principles, and DOES NOT infringe upon any other in the world. It is emphatically the poor man's Sewing Machine, and is warranted to excell ALL others, as thousands of patrons will testify.

**FAGENTS WANTED.—Machines sent to agents on trial, and given away to families who are needy and deserving. Address J. C. OTTIS & CO., Boston, Mass. Jy-6t

Baltimore Markets, July 25, 1868.

COFFEE.—Rio, 13a17% ets. gold, according to quality; Laguayra 16% ai7 ets., and Java 23a23% ets., gold. Corner - We must bulger as follows wir:

Grades. Upland.	
Ordinary 27 %a-	00
Good do28 % a-	00
Low Middling 29 % a-	00
Middling	00

10c per bushel, at kilns.

FLOUR.—Howard Street Super, \$8.00a9.00; High Grades, \$11.00; Family, \$11.50a12.00; City Mills Super, \$8.00a9.00; Baltimore Family, \$13.50.

Bye Flour and Corn Meal.—Bye Flour, \$9.00a9.25; Corn Meal, \$5.75a7.00.

GRAIN. - Wheat. - Good to prime Red, \$2 25u2.45; White, \$2.35u2.50.

Ryc .- \$1.40a1.50 per bushel.

Oats.—Heavy to light—ranging as to character from 85a95c. per bushel.

Corn.-White, \$1.12a1.20; Yellow, \$1.14a1.20 per

HAT AND STRAW .- Timothy \$15a18, and Rye Straw \$as- per ton.

Provisions.—Bacon.—Shoulders, 14a14% cts.; Sides, 16% a17 cts.; Hams, Baltimore, 20% a21% cts. per-lb. Salt.—Liverpool Ground Alum, \$2.05a2.15; Fine, \$2.80 a\$3.00 per sack; Turk's Island, 50a75 cts. per bushel.

SEEDS,-Timothy \$2.50; Clover \$7.75a8.50; Flax \$2.50. Tobacco. - We give the range of prices as follows:

Maryland.	
Frosted to common	\$3,75a 4,50
Sound common	
Middling	8.00a10.00
Good to fine brown	10.50a15.00
Fancy	17.00a25.00
Upper country	7.00a35.00
Ground leaves, new	4.00a13.00
Ohio.	182
Inferior to good common	4.00a 6.00
Brown and greenish	7.00a 8.00
Medium to fine red and spangled	9.00a15.00

Woot.—We quote: Unwashed, 28a30 cts.; Tub-washed 38a42 cts.; Pulled 32a34 cts.; Fleece 36a40 cts. per lb

CATLE MARKET.—Common, \$5.00a5.50; Good to fair, \$5.75a6.25; Prime Beeves, \$8.00a5.75 per 100 ibs. SAcep—Fair to good sheared, \$4a5\text{\chi}\$ cts. per lb., gross. Hogs.—\$12.75a13.50 per 100 ibs., net.

Wholesale Produce Market.

Propared for the American Furmer by HENRY W. WARNER, Produce and Commission Merchants, 18 Commerce street.

BALTIMORE, July 25, 1868.

BUTTER.—Western solid packed 29a31 cts.; Roll none; Glades, 35a45; Goshen none.

BEESWAZ—42a—cts.
CHEESS.—Bastern, 16a16½; Western, 15¼a16.
DRIED FRUIT.—Apples, 6 to 7; Feaches, 8a12.
EEGS—23a24 cents per dozen.
FEATHERS.—Live Geese, 60 to 80 cents.
LAND.—Western, 18. City rendered, 17½ cts.
TALLOW.—11a12 cents.

POTATORS .- \$4 00 per bbl.

NEW ADVERTISEMENTS-AUGUST.

Guano and Fertillzers—John S. Reese & Co.
Wm. Crichton & Son.
B M. Rhodes & Co.
Wale, Harris & Co. Neale, Harris & Co.
P. Zell & Son.
Geo. Dugdale.
R. J. Ruth & Co.
Balto City Fertilizing Mf g Co.
Sam' I Townsand & Son.
Andrew Coe. .. 44 44

"Andrew Coe.
Mari and Muck Lifter—Bryan & Bro.
Tobacco Curing Apparatus—L. Weatherby & Sons.
Napoleon III. Strawberry—Edw'd J. Evans & Co.
Seed Wheat—Edw'd J. Evans & Co.
"Geo. A. Deits.
Seed Wheat, Oats, Chester Pigs—N. P. Boyer & Co.
Cabbage and Celery Planta—Edw'd Burgess.
Grist Mill-Wm. L. Boyer & Co.
Catalogue of Agr'l Implements, &c.—R. H. Allen & C.
Virginia Female Institute—Rev. R. A. Phillips.
Washing Machines—S. W. Paimer & Co.
Ventilated Truss—W. F. Daily.

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No. 47

SOUTH CALVERT STREET.

BALTIMORE.

SOLE AGENTS

FISHER BROS.

PURE

WHOLESALE DEALERS IN

Clover, Timothy,

AND OTHER

Field Seeds.

SAML. TOWNSEND & SON,

aug-2t

47 SOUTH CALVERT STREET.

IMPORTANT TO

Wheat Growers.

ANDREW COE'S Superphosphate

It gives WHEAT a firmer stalk, so that it is not liable to lodge before ripening; produces a large head and plump kernel, and is rarely affected by RUST or MIDGE.

AND IT HAS GIVEN

UNIVERSAL SATISFACTION

TO ALL WHO HAVE USED IT.

For sale by

HERBERT & HAIRSTON. AGENTS.

No. 10 Camden street,

BALTIMORE, MD. aug

CHALLENGE WASHING MACHINE!

COSTS BUT

\$7.00 to \$9.00,

AND IS WARRANTED to wash easier, quicker and better, and with less wear to the clothes, than any other machine or process. 30,000 sold, and are giving perfect satisfaction.

Challenge Wringer and Ironer!

The best in the world. Warranted to be as good for use, after two years' proper usage, as when new, and assured to work perfectly ten years.

AS AN IRONEE.— It irons without heat, very rapidly, and will last a life time.

READ.—I have sold 500 Challenge Washers in my county, and they are all giving the most perfect satisfaction.

J. F. Barrow, Hickory, Harford Co., Md.

I can sell 1000 Challenge Washers and Wringers in my county. Have been offered \$200 for the right, (small population—cost him \$25,) but would not take \$400 for it. A. M. Shevis, Jeddo City, Jowa.

These machines are a special blessing to suffering female humanity, and every house should have them.—
Lynchburg, Va., Advertiser, April 21, 1868.

We honestly believe this Washing Machine will be in time, the pride of every housekeeper. It combines ex-traordinary labor and time-saving properties with ex-treme simplicity of construction.—Mississippi Index.

A child can operate it, so simple is it in its construc-tion and operation. It combines more points of excellence than any other machine we have ever seen. We recom-mend them to those wishing a good machine.—North-Western Christian Advocate

AGENTS wanted everywhere, at a profit of from \$10 to \$50 per day. Send, enclosing stamp, for Circular giving full description and terms, and 1000 recommendations like the above.

S. W. PALMER & CO., Auburn, N. Y.

WILL BUY A CHALLENGE WASH-ING MACHINE, warranted the best in the world, regardless of price, and mo-ney refunded if it does not prove to be so. It washes easier, quicker and bet-ter and with less wear to the clothes, than any other machine or process

Sold, and are giving the most perfect satisfaction. Agents wanted every where, for this and the CHALLENGE WRINGER AND IRONER, a perfect Wringer combined with an Ironer or Mangle, for ironing WITHOUT HEAT, and very rapidly. Send for Circular, (enclosing stamp,) containing 1000 genuine references like the following:

Massas. Palmer & Co., Gentlemen: Your Washing Machine gives entire satisfaction to every one who uses it. We are only astonished that so much real value as be had for so little money. I am glad the poor as well as the rich can have such a splendid help for the duties of washing day.

J. K. Pres.

Presiding Elder, Honesdale, Dist., Pa.

MESSES. PAIMER & Co: We have used the Challenge Washing Machine about eighteen months—have sold over sixty, and they are giving the most perfect satisfaction. For compactness, simplicity, durability, efficiency of work and case with which they are handled and operated, they excel all Washing Machines I have ever seen.

L. W. Ely, Member Erie (N. Y.) Conf.

S. W. PALMER & CO., AUBURN, NEW YORK.

aug-It

Young and Pure-Bred Fowls.

I have for sale Suff, Cochin Chinas, White Faced, Black Spanish and Brahmapootras, all superior purebred fowls, and guaranteed to be second to none, at \$12 per tric, boxed and sent with safety by express to all parts of the United States. All information sent free.

Address CHARLES P. NETTLETON,
ju-tf Birmingham, Conn.